Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.[1]

Delivered at the Royal College of Physicians of London, July, 1876,

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LECTURE II.—PART VI.

ON PARALYSIS LIMITED TO A LIMB OR TO SOME MUSCLES.

Arguments to establish that paraplegia can appear from brain disease, without an organic lesion of the spinal cord—Conclusions as regards the value of cases of paralysis of both legs, or only one, in cases of cerebral organic affections, against the generally admitted view that paralysis in brain disease is due to loss of the function of the part diseased—General conclusion about cases of paralysis of one arm or one leg, or of both arms or both legs—Facts to show that paralysis limited to the face can be caused by disease in other parts of the brain than the pons Varolii.

I HAVE no doubt that in a number of cases of paraplegia allied with brain disease the cause of the paralysis was an organic affection of the spinal cord. But there are many arguments showing that, sometimes at least, paraplegia was caused by disease of the brain itself. The first argument is that the spinal cord was carefully examined in a number of cases, and was found healthy, or if not quite so, only a little congested.[2] The second argument is the simultaneity of appearance of paraplegia with symptoms of hæmorrhage in the brain. This simultaneity was noticed in cases of Calmeil, Giraudet, Guillemin, which I have already quoted.[3] The third argument is that in other cases than those of hæmorrhage there was not only simultaneity of appearance of paraplegia and clear symptoms of disease of the brain, but also a similitude in the development of that local paralysis and of those symptoms.[4] The fourth argument is grounded on the well-known fact that organic diseases of the spinal cord never give rise to intermittent paralysis, while, as I will show in the next lecture, diseases of the brain not rarely produce transitory attacks of paralysis. In a remarkable case of Abbot's,[4] an inflammation of the corpus striatum, the crus cerebri, and the hippocampus major, on one side, at first only produced attacks of paralysis of the lower limbs. The fifth argument consists in the relative frequency of paraplegia in cases of disease of the base of the brain and of the cerebellum. One might easily understand, if the views of the localisers were right, that a paraplegia should appear when there is disease of the two pretended psycho-motor centres of the legs. But this is so far from what we see that the number of cases of disease of the middle lobes (the parts in which those so-called centres are supposed to be), allied with paraplegia, is exceedingly small, while it is twenty times more common in cases of disease of the cerebellum and the base of the brain. The sixth argument, showing that paraplegia can really be due to brain disease, is grounded on the decisive case of Guthrie,[5] in which a man who had become paraplegic from a fracture of both parietal bones recovered the use of his legs from trephining.

It might be said that a paralysis of the two lower limbs can easily be explained in cases of disease of those parts of the base of the brain which are considered as containing the conductors going from the psycho-motor centres to the muscles. This explanation is disposed of by many sets of facts, among which I will point out the two following:—First, if we examine what takes place when there is disease of the front part of the crura cerebri, the pons Varolii, and the medulla oblongata, we may find that there is a paralysis of the upper limbs in some individuals, and a paralysis of the lower ones in other individuals; secondly, that disease in the back part of the crura cerebri has caused paraplegia, and even more frequently than disease of the front part of those crura and of the pons Varolii.

Summing up now all that I have stated about paralysis of one or of both lower limbs, I will say—

1st. That the views of localisers are disproved by three sets of facts: the first showing that disease in parts of the brain supposed not to contain the centres for the movements of the legs, can produce paralysis of one or of both lower limbs; the second showing that disease in those pretended centres can produce paralysis of the arm instead of the leg;[6] the third that paralysis of one leg alone, instead of appearing on the side opposite to that where the disease exists, can appear in the corresponding or same side.

2nd. That the views of localisers are also disproved—first, by facts showing that a lesion in one side of the brain can produce paralysis in both lower limbs—i.e., simultaneously a cross and a direct paralysis; secondly, by many facts showing that disease of almost equal extent in corresponding parts of the two sides of the brain can produce paralysis in one only of the lower limbs.

3rd. That the still admitted notion that the corpus striatum is a centre for the voluntary movements of both the upper and the lower limbs on the opposite side, must be given up, as a great many facts testify against it. For instance, we find, first, that disease in one corpus striatum can produce paralysis in one or both legs, and if only in one, in that on the side of the lesion, or in that on the opposite side; secondly, that disease in both corpora striata can produce paralysis in both legs, or only in one; thirdly, that disease of one of the corpora striata or of both, instead of causing paralysis of one or of both legs, can cause paralysis of one of the arms or of both.

4th. That it is impossible to consider paralysis of one of the legs or of both as being an effect of loss of function, as otherwise we should have to admit the absurd or impossible view that the centre for the movements of the leg varies in different individuals—i.e., that in some it is in the anterior, in others in the middle, and in others again in the posterior lobes; that in some persons it is in the convolutions, in others in the white substance of the brain, and in others again in the central parts of that organ; that in certain individuals it is in the side of the paralysis, in others in the opposite side, and in others again in one side for both lower limbs.

4th. That paralysis of the leg alone may be caused by disease of any part of the base of the brain, and that therefore we cannot consider paralysis, at least in such cases, as depending on loss of the function of pretended conductors for voluntary movements, because it is impossible to admit that these conductors occupy different places in different individuals.

If now we put together the facts relating to paralysis of one or of both arms, and those in which one of the legs or both were paralysed, in cases of brain disease, we find that lesions of the convolutions of the brain—either those of the anterior, the middle, or the posterior lobes—will produce paralysis of one arm or of both arms much more frequently than paralysis of one of the lower limbs, or of both; while the reverse is found when disease exists in the cerebellum or the base of the brain. As I have shown, most decisively I hope, such differences cannot be explained by the suppositions of localisers—old or contemporary—

[1] I will particularly call attention to cases of Demange's (Bulletins de la Société Anatomique, 1874, p. 503), and of Lhuillier's (quoted by Gintrac, loc. cit., vol. vi., p. 209).
[2] See THE LANCET, Sept. 30th, 1876, p. 453.
[3] See the cases of Beith, Toulmouche, Rouland, Romberg, and T. Salter in THE LANCET, Sept. 30th, 1876, p. 454.
[4] The American Journal of the Medical Sciences, July, 1858, p. 74.
[5] Quoted by Dr. S. Wilks, Guy's Hospital Reports, 1860, p. 301.
[6] When I treat of paralysis as caused by the convolutions of the brain, I will give a great many facts bearing on this point, showing particularly that disease of the pretended psycho-motor centre of the leg, either according to Hitzig's or to Dr. Ferrier's views, can cause only, chiefly or first, paralysis of the arm instead of that of the leg, so that if we were to draw conclusions from these facts without paying attention to other facts, we would say that those parts are the centres for the movements of the arm. I will merely now call attention to cases of Professor Charcot (in Thèse de Cotard sur l'Atrophie Cérébrale [Paris, 1868], p. 21), of Lacrampe-Lonstau (in Lallemand, loc. cit., vol. ii., p. 591), of Gerhardt (in Hayem, Revue des Sciences Médicales, vol. vii., 1876, p. 633), of Desruelles (in Gintrac, loc. cit., vol. vii., p. 18).

or by any other supposition at all in harmony with the view that paralysis in brain disease depends on loss of the function of the part visibly altered. In presence also of the following features—that a paralysis of the arm will exist alone, or appear first, or be more intense or more persisting than a paralysis of the leg, in a large proportion of cases of disease of the brain, without any possibility of explanation in harmony with the hypothesis that paralysis in organic cerebral affections depends on loss of the function of the part diseased,—I do not think we can avoid rejecting absolutely that hypothesis.

I now pass to another series of arguments, the main object of which is, however, to show also that we ought to reject as completely groundless and false the still generally admitted view that paralysis in cases of diseases of the brain arises from the loss of the function of the part visibly altered in that organ. The history of facial paralysis in brain disease, which is now the subject I am to examine, is extremely rich in facts speaking loudly against the admitted views. Long ago (in 1861), in my Gulstonian Lectures, delivered at this College, I insisted on several arguments relating to facial paralysis, and showing that these views were contrary to fact. On the one hand, I showed that a few facial muscles only are usually paralysed in diseases of other parts of the brain than the pons Varolii, and on the other hand I showed also that this narrowly limited paralysis was found sometimes or frequently in cases of disease in any part of the cerebral hemispheres, including the sensory-motor ganglia and the base above or in front of the pons. In presence of such facts it was clear that admitting that facial paralysis depends on loss of the function of the parts diseased was coequal to admitting that the motor nerve-fibres going to the few facial muscles so frequently paralysed in brain disease were all present in each part of the brain, or that in one individual they are in one part and in another person in another part—two suppositions too absurd to be for one moment accepted. I will now lay before you many series of facts which will, I hope, be, if possible, more able than my previous arguments to prove that we must give up the admitted views.

The first point on which I will insist is that *facial paralysis can be caused by brain disease without hemiplegia or paralysis of limbs.* A case well worthy to be mentioned first is that of an eminent surgeon, Dupuytren, who himself was attacked with paralysis limited to the face from a cerebral hæmorrhage. He was lecturing at the Hôtel Dieu in Paris when attacked. His mind not being affected, he had the courage to proceed with his lecture, holding his face with his hand. He lived nearly fifteen months after the attack, and died of pleurisy. The autopsy revealed as the cause of the slight apoplectic attacks he encountered, and the only cause of the facial paralysis, the remnants of several old effusions of blood in both corpora striata and in the right optic thalamus.[7] In a remarkable case, carefully recorded by Duplay[8], the face was suddenly paralysed, the loss of voluntary action showing itself in all the muscles animated by the left facial nerve. There was no other paralysis. Recovery took place within a year without treatment. Death occurred twenty months after the paralytic attack, and an old and small apoplectic cyst containing serum was found in the right corpus striatum. The pons Varolii, the medulla oblongata, and the left facial nerve were perfectly healthy. This case is of great value in showing not only that a paralysis limited to the face can be caused by an organic disease in another part of the brain than the place of origin of the facial nerve, but also that the kind of paralysis which is usually the effect of disease of the facial nerve in and out of the pons Varolii can be caused by disease in other parts of the brain. This last point will be established by other facts by-and-by. I will now proceed to show that what we have seen already as regards paralysis limited to one arm or to one leg is seen also as regards paralysis limited to the face—namely, that the loss of voluntary movement can appear on the side of the lesion or on the opposite side.

[7] See Gazette Médicale de Paris, 1837, p. 111; and Journal Hebdomad. de Médecine, 1845, vol. 1, p. 213.

[8] De la Paralysie Faciale produite par une Hémorrhagie Cérébrale (Paris, 1854), p. 9. A reprint from the Union Médicale, Août, 1854.

EARL SPENCER has been re-elected President of the Royal Victoria Dispensary, Northampton, for the ensuing year.

THE HISTORY OF A CASE OF BURST OVARIAN CYST.

BY THOMAS KEITH, M.D. EDIN.

IN a paper published two years ago in the *Edinburgh Medical Journal*, I endeavoured from a number of cases to show that, however hopeless-looking the circumstances, operation ought to be the rule of practice whenever there is acute suppuration in an ovarian cyst, or when typhoid symptoms come on after rupture or tapping. The following narrative affords an instructive illustration that this principle is a sound one.

A young married Englishwoman came to me from Dr. Gowans, of South Shields, in the end of October last. The local conditions seemed favourable, though the general condition was perhaps a little too good for operation, at least better than I like to have to do with. The tumour had grown rapidly. It filled the abdomen, and pushed the ensiform cartilage upwards. The measurement was already forty-three inches, and there was commencing œdema of the abdominal wall and lower limbs. The cyst was extremely tense, and fine friction was unusually distinct almost all over its surface. There was obscure fluctuation on the left side, but the tumour on the whole felt semi-solid. Attacks of pain were frequent and severe, and she was often sick. On account of the tension, which was unusual, and not safe in the case of a tumour that had grown so rapidly, operation would have been performed on the day after her arrival, had not the period come on with violence a few days before it was due. When this passed off, the patient went out for a walk on a very cold day, lost her way in the streets, and came back fatigued and chilled. For several days after she had slight shiverings, looked ill, and became very sallow. She got daily into a less good state for operation; she was feeble, listless, and lay about. There was a little albumen in the urine and a trace of bile, but increase of tension was so rapid that delay was more dangerous than waiting for the chance of improvement. Operation was fixed on for Nov. 4th.

On placing my hand on the abdomen, in the morning, to feel the friction-sound once more, both friction and tension had disappeared, and there was clear sound under the ensiform cartilage, where none existed the night before. It was evident that some leakage was going on from the tumour somewhere. An hour afterwards, at the time for operation, Dr. Gowans was present from Shields, and there were some German and other visitors. By this time rupture of some cyst was more decided, and there was a slight wave of fluid over the upper part of the tumour. On putting an aspirator needle into the softest part above the umbilicus, about a pint of thick black fluid, like hare-soup, was with difficulty got away. On withdrawing the needle, which got plugged with a piece of lymph, some fluid from the peritoneum spirted up in a fine stream through the needle puncture. This was thinner than that from the cyst, though almost as dark in colour. It was afterwards found, when the deposits of these two fluids had subsided, that that from the cyst gave a sediment of old clot and fibrin amounting to nearly one-half, while the fluid from the peritoneal cavity showed only one-twentieth, of a soft, pinkish, purulent-looking character. There could be no doubt that the rupture was a small one, and that the fluid was being slowly filtered through old blood-clot.

The question now arose whether operation should be gone on with or not. There was no constitutional disturbance, no pain, no tenderness. There is nothing in ovariotomy I more dread than to find a fluid containing old blood in the abdominal cavity. However carefully this may be cleaned, experience had long ago taught me that in such circumstances there is risk of septic peritonitis. Here it was certain that within an hour or two a quantity of the worst kind of fluid had escaped upon a fresh peritoneal surface. It was a choice of evils. I decided to wait. Not much more fluid could escape, for the tumour was mostly semi-solid. The fluid might be absorbed, as I had often seen happen before, and operation might be performed in a week or two with a better chance of success. Present relief of tension

had so far been obtained by the removal of thirty ounces of fluid. Operation must be more than usually hazardous in the case of a patient whose liver was congested, whose kidneys were eliminating but little, and that little containing both bile and albumen. The day was passed quietly without complaint. The action of the skin was solicited in vain. By evening the skin was hot and dry. Temperature 101°; pulse 120. The night was good, but next day the pulse and temperature continued to rise, and thirty hours after the rupture the temperature in the axilla was 106°, in the mouth 105·6°; pulse 130; respiration 32.

Third day.—Night restless; aspect bad; severe bilious vomiting. Temperature 104·5°; pulse 120. Vomiting continued during the day; skin hot and dry; face, hands, and limbs swollen; abdomen softer; flatus passing; no pain.

Fourth day.—Temperature 103·5°; pulse 120. Much thirst and restlessness; flatus coming up in quantity; dark red fluid vomited all day.

Fifth day.—Temperature 103·8°; pulse 130. Vomiting almost constant since 3 A.M.; looks pinched and ill; distinctly jaundiced all over; slight tendency to diarrhœa; free stimulation all day. By evening she was easier, and had slept, and had retained a little soup. On account of the relaxed state of the sphincter neither nutritive nor stimulating enemata can be retained five minutes. The urine is scanty, loaded with bile, giving also a deposit of one-tenth of albumen, with a few renal cells. Now all evidence of free fluid in the abdomen has disappeared, though there seems to be some in Douglas's space. There is much general soft swelling in the pelvis; the cervix is much swollen; the uterus is low down, is moved forwards towards the pubes, and somewhat fixed.

The sixth, seventh, and eighth days were spent mostly in vomiting, while some rest was got at night by opiates. The typhoid symptoms became more marked, the tongue was dry, teeth and lips black, skin harsh and dry. Temperature ranged from 102° to 105°; pulse from 110 to 125. There never was pain or tenderness anywhere.

On the ninth day the tumour at the epigastrium was again tense. Twenty ounces of thick, bloody fluid were got away by an aspirator. Tension was somewhat relieved, and the day was passed quietly without vomiting. Next day the vomiting returned, with increase of fever and acute swelling of the right foot and leg. When seen late at night there was a small spot near the umbilicus which gave a tympanitic sound; this could only arise from air in the cyst. No more favourable time could now be looked for.

Next morning, November 15th, things had in no way improved. The night was not bad, though there was some vomiting towards morning. Temperature 103·5°; pulse 122, very feeble. The abdomen was now more generally distended, the area of tympanitic sound at the umbilicus was greater, while here and there all over the tumour there was obscure resonance on deep percussion. Decomposition was going on in the tumour, and air was being rapidly secreted. The prospect was not a hopeful one, and though I had several times operated in nearly similar conditions, this patient seemed to have absorbed more poison than any of the other cases of putrid cyst. The temperature was higher than in anyone, so far as I knew, on whom ovariotomy had been successfully performed, while the severe vomiting of the last ten days had greatly reduced her strength. She seemed to have shrunk to half her former size. Then she was jaundiced and had phlegmasia dolens; the skin was harsh and hot, the kidneys acting very little, and the tongue and mouth so dry that articulation was difficult. With all this she was strangely indifferent and unconcerned as to her fate.

Sulphuric ether was given by Dr. Foulis, and I had the assistance of Dr. Sidey and Dr. McGibbon, friends always ready to come to my help at any moment, at whatever inconvenience to themselves. Dr. Church was the only visitor present. A layer of soft thick recent lymph covered the tumour. The hand passed through this easily in all directions except above and posteriorly, where old and firm adhesions to the omentum, mesentery, and intestines existed. On putting in the trocar there was a rush of putrid air, filling the room with its gangrenous odour. Little fluid came away. The hand was passed into the tumour, and a quantity of putrid blood-clot and fibrine removed. The rest was semi-solid and was slowly broken down. The whole was putrid, and the cyst-walls—as tender as blotting-paper—would not bear any pull upon them. All fluid was therefore pumped out. Adhering to the under surface of the liver, the cyst was very thin, black, and gangrenous. The omentum was adherent to the tumour and wall; posteriorly, firm and extensive adhesions to mesentery and intestines were separated; these were all matted together by recent lymph. Just as the cyst-walls were almost all turned out of the abdomen, and as some loose adhesion near the brim of the pelvis was being separated, and while I was congratulating myself that such a friable and putrid mass of cysts was got away without tearing or escape of infective fluids over the contents of the abdomen, there came a sudden gush of horribly fetid fluid from below, splashing over everything. It was now seen that an encysted collection in the pelvis, roofed over by the base of the tumour, had been opened into. The pelvis and its contents, uterus, and rectum, were coated with a thick lining of intensely putrid lymph. This could be peeled off in layers, leaving a raw bleeding surface. All fluid was sponged up, quantities of soft fetid lymph removed from the bottom of the pelvis, the whole of Douglas's space washed again and again with a solution of carbolic acid (1 in 20), and a warm solution of the same was freely sponged over the whole upper pelvis and wound, and wherever the putrid fluid was thought to have reached. Most of the small intestines, being adherent high up, had fortunately escaped contact with the fluid from the pelvis. Lister's ligatures were applied to all bleeding points, the torn omentum tied in five portions, many patches of thick soft lymph adhering here and there in all directions were removed (though it was hopeless to try to get them all away), the usual glass drainage-tube was put in above the clamp, and the wound closed by silk sutures. The putrid mass and cyst contents weighed twenty-five pounds.

The operation lasted an hour and a half. She was placed in a warm bed, and brandy and opium injected into the rectum. Two hours after, at 2.30 P.M., four ounces of very bloody serum were removed from the tube (this fluid was quite sweet); at 4.30 one ounce, at 9 P.M. half an ounce, and at 11 P.M. half an ounce. At 9 P.M. the temperature was 103·6°; pulse 130; respiration 28. She had vomited twice. There was now copious perspiration about the head and neck. She looked pale and ill, but was cheerful. At 11 she was again violently sick, vomiting green fluid. At midnight there was a copious perspiration; temperature 103·4°; pulse 140. At 2 A.M. barely half an ounce of fluid in the pelvis.

Nov. 17th.—Temperature 103·6°; pulse 130. Only four ounces of urine, loaded with pink lithates. Tongue dry and furred. During the day had short sleeps and occasional perspiration. Red serum removed from time to time. Towards evening vomiting became severe, large quantities of matter like chopped grass being thrown up; œdema of right leg almost gone, that of the left wholly so. During the day, fourteen ounces of urine loaded with lithates; temperature 103·5°; pulse 124.

18th.—Restless night. Vomited at 5 A.M.; looks tired and ill; tongue so dry and tremulous that she can scarcely speak. Temperature 103·3°; pulse 118. Urine passed involuntarily; abdomen distended and hard. One ounce and a half of red serum from pelvis. Towards afternoon fell into a sound sleep, and there was copious perspiration; the skin became soft, the tongue less dry, and flatus passed freely. Three ounces of nearly clear serum were removed at different times from the pelvis during the day. By evening the temperature had fallen three degrees. The improvement was sudden and remarkable.

19th.—Temperature fell other three degrees during the night, six degrees in twenty-four hours, and is now 97·8°; pulse 88. Two ounces and a half of turbid serum from tube, not fetid.

For the next week there was a slow but steady improvement. Then she fell back again, and the pulse and temperature were rarely under 100. The wound, which for a week seemed healed, gradually opened up, and closed by granulation. Though she took food pretty well, she lost flesh, and every now and then, almost every day sometime, there was vomiting of bile. Some swelling, with obscure feeling of fluctuation, formed to the left of the umbilicus, where adhesions were greatest, and where there was most matting of the intestine. There was also general tym-

panites. On the twenty-eighth day after operation there was severe vomiting. By evening she was almost collapsed, with rapid and nearly imperceptible pulse. The swelling had entirely disappeared. There must have been some limited collection of fluid which had found its way into the cavity of the abdomen. Very free stimulation was again necessary. For two whole days the basin was not away from under her mouth, and there was a repetition of the condition that caused such anxiety four weeks before. After several days of drenching perspirations, convalescence went on satisfactorily. She returned to Shields a few days ago (Jan. 4th).

The appearances this abdomen presented at the operation were such as are not seen except at a post-mortem examination. Most remarkable was the condition of the pelvic cellular tissue. Felt from below, immediately before operation, beyond a general fulness and softness of the vagina, there was nothing unusual. The uterus, which a week before was somewhat fixed, was now fairly movable. The cervix was still large, but there was no tenderness or hardness anywhere. Yet, when looked at from above, the swelling of the pelvic soft parts was such that three fingers only could be pushed into the cavity, instead of the whole hand with a big sponge in it, as is usual.

In my former cases of acute suppurating or putrid cysts, with high temperature, there was a fall of temperature immediately after operation. In this patient the temperature did not fall, neither was there any improvement in the general condition till forty-eight hours after.

I have only once before met with a case of gangrene of the cyst.[1] As in this patient, there was a chill, and tapping was performed to relieve pain and tension. Typhoid symptoms rapidly came on, and ovariotomy was performed in the semi delirium of septic fever. In another case,[2] a large acute suppurating cyst had burst into the abdomen. During ovariotomy, three weeks afterwards, an encysted collection was found in the pelvis. This cavity was lined with a thick layer of lymph, which could easily be peeled off, and was filled with pus of the consistence of soft butter, evidently the deposit of the large quantity of purulent fluid which had escaped, and which nature was unable to dispose of in any other way than by encysting it. In another case, where a suppurating cyst had also burst, tapping was performed a few hours after the rupture, the patient being then almost pulseless. Here no collection was found in the pelvis at ovariotomy three weeks after; there was only firm posterior adhesion about the sacrum, to the uterus, rectum, and pelvis generally. Recovery took place in these three instances.

I have now operated fourteen times in cases of acute suppurating or putrid cysts.[3] Every one at the time looked hopelessly bad, yet twelve of them recovered. If in such a proportion bad cases do well, surely the mortality after ordinary operations of ovariotomy ought to be much lower than it is. Yet, speaking for myself, the mortality year by year diminishes. In the last 107 operations there have been 10 deaths, while of 21 performed last year all got well save one.

Edinburgh.

A CASE OF

LOCALISED INJURY OF THE ANTERIOR CONVOLUTIONS OF THE BRAIN,

WITH PECULIAR SYMPTOMS.

BY A. DAVIDSON, M.D.,

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GREAT addition has been made in late years to our knowledge of the functions of the various parts of the brain, chiefly through experimentation on the lower animals. It seems to me that still more might be learned in this department of physiology from carefully observing and recording the symptoms in the cases of limited lesions of the human brain from accidental injuries, which must frequently come under observation in the surgical wards of our hospitals. The following case is a small contribution of this kind. The patient was admitted into the surgical wards of the Liverpool Northern Hospital. I had the opportunity of seeing him and observing his symptoms, and I have received the permission of Dr. Graham, the surgeon under whose care he came, to publish the case.

Patrick M——, aged thirty years, a labourer, was working outside a cotton warehouse on the afternoon of June 10th, 1875, when a large iron hook, used for hoisting bales of cotton, which was suspended by an iron chain to the topmost storey of the warehouse, swung against his head, and carried away a considerable piece of the skull, leaving a great gaping wound, through which the injured brain-substance protruded. He was at once carried to the hospital. When in the accident-room he was found to be apparently conscious, though his manner was peculiar. He understood the questions put to him, and gave his name and address when asked. He was taken up to bed. I saw him within half an hour after his admission. There was an extensive wound of the scalp, which was retracted, exposing a great opening in the frontal skull, chiefly on the right side, from which blood was oozing freely, and through which injured convolutions of the brain could be seen. The injury on the right side extended as far back as the coronal suture or a little behind it—that is, as far back as the posterior part of the superior frontal convolution. There was a considerable piece of half-loose bone here, pressure on which caused some pain. On the left side the deficiency of bone did not extend so far back by about an inch. Here, too, there was a loose piece of bone, about the size of a penny, driven down and fixed firmly on the surface of the brain about the middle part of the superior frontal convolution of that side. There was evidently much more injury and destruction of brain-substance on the right side than on the left.

I found the patient at this time, within an hour of the injury, in a very peculiar condition. He had just lain down in bed. His pulse was 70, of fair strength. There was no collapse. He put out his tongue when asked, and gave his name and address. He volunteered no remarks. When asked how the accident happened, he answered vaguely "he was going to have some tea with this young woman" (pointing to one of the nurses). He showed himself rather restless, sitting up in bed occasionally. While the nurses were sponging the blood from his arm, he assisted them by holding the arm out and turning it round, and occasionally pointed to spots which he wished to be cleaned, but without speaking. He also frequently wiped away with some tow the blood which trickled down his face from the scalp wound. He appeared to suffer no pain, nor to have any idea of what had happened to him. He swallowed some milk, and ate some bread which was given to him. He did this not as if he was hungry, but merely because it was given to him. Indeed, every action he performed left the impression on the mind of the observer that it was purely automatic. On two occasions only did he say anything, except in answer to questions, and then the remarks appeared to be delirious, and to have reference to the work he had been engaged in—"Bill, shove that out of the way," &c. One striking fact was that, after the nurses had ceased to sponge away the blood stains on his arms, he still held out his right arm often in a spasmodic way, stretching it out suddenly and violently, and pointing out spots. He also frequently sought to shake hands with those near him, so often as to be quite ludicrous. He did not attempt to get out of bed. No paralysis of face, arms, or legs could be detected. He opened his eyes when asked, and could move them about in every direction. After a short time he lay down and remained quiet. When I saw him again two hours later he was in a similar state, but quiet. Dr. Graham also saw him, and ordered ice to be applied to the brain in a bag.

June 11th.—Next day he was in a similar state, but still quieter. Pulse as before; temperature normal; no paralysis. He made water naturally in the night; he got out of bed and stood on his feet, and the night nurse, seeing what he wanted, brought him the utensil, which he used. To-day his bowels acted involuntarily in bed. During the course of the day he lay quiet, but shook hands with anyone who came near his right hand. He never spoke except to say once or twice, "Oh, my head!" He showed no recognition of the circumstances he was placed in. He evidently did not like to be disturbed, and if anyone uncovered him he

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[1] THE LANCET, 1865, p. 480. [2] Edin. Med. Jour., Feb., 1876.
[3] Edin. Med. Jour., 1875.

did not like it, and drew the clothes over him again. He took milk well. In the afternoon, under chloroform, Dr. Graham removed the loose plate of bone on the right side, and raised to some extent the depressed piece on the left. The projecting mass of bruised brain and blood-clot was cut away, the flaps of skin brought over the wound, and ice reapplied. That night symptoms of inflammation came on. The temperature rose to 105°; the pulse to 150. Before morning he was comatose.

12th.—Noon: Temperature 104°; pulse 112. Patient quite unconscious, quiet.

He died next morning at 2 A.M.

Post-mortem examination, nine hours after death.—There was an irregular opening in the skull, commencing about two-thirds of an inch above the orbital plate, and extending upwards about two inches in the mesial line, and about one inch to the left of the mesial line. On the right side it was much more extensive, reaching about two inches to the right of the middle line, as far as the middle meningeal artery at its upper part. On the left side was a separated piece of bone, one and a half inches long (antero-posterior diameter) and two-thirds of an inch broad, which had been driven down upon the brain to the left of the mesial line, and was firmly adherent to the dura mater at this part. A fracture extended on the left side down to the sella turcica. The dura mater was very much injected, especially on the left side, and there were minute threads of lymph extending along its vessels. On the right side in front it was torn, and through this opening the brain-substance protruded to the size of a large orange. On removing the dura mater, it was found that the depressed piece of bone was pressing on the left superior frontal convolution about its middle part. At this point the convolutions were flattened and quite soft, and there was some amount of effused blood in the sulci. The whole surface of the left hemisphere was intensely hyperæmic. A longitudinal section made vertically through the left hemisphere showed the brain underneath the depressed bone to be disintegrated to the depth of nearly one inch in front (half an inch behind). The condition was one of red softening. The rest of the hemisphere was healthy. The injured portion of the *right* hemisphere extended superficially over the greater part of the superior and middle frontal convolutions, as far back as the anterior ascending parietal convolution, which was uninjured. Behind this there was a thin layer of pus. There was also a little pus on the cerebellum on the left side. The destruction of brain-substance on the right side extended to within half an inch of the grey matter of the corpus striatum. The rest of the brain was healthy, and all the other organs of the body were natural.

I do not think it possible, in the present state of our knowledge, to explain fully the peculiar symptoms of this case. I shall venture, however, to make two remarks: First, the principal destruction of brain-substance in this man was confined to the superior and middle frontal convolutions of the right side. Now Ferrier's experiments on monkeys led him to the conclusion that destruction of the frontal lobes leads to impaired intelligence and attention, and perhaps this may explain the peculiar mental condition I have endeavoured to describe above. Secondly, the only disturbance of voluntary motion I could detect in the patient was the rather remarkable spasm-like jerking forwards of the right arm, which was observed at first, and which was done so persistently and in such a way as to suggest very strongly to my mind that the movement was of a convulsive character. Along with this was the constant endeavour to shake hands with those near him. Ferrier's researches have established that irritation of the posterior part of the superior frontal convolution (5 in his diagram) leads to extension forward of the arm of the opposite side, and he states that this movement seems to be sometimes connected with the region in front of this (12)—that is, the middle of the superior frontal. Now it was at the middle of the *left* superior frontal convolution that the chief irritation of the surface of the brain existed, for it was here that the depressed piece of bone lay, which at first would cause irritation, and afterwards inflammation and softening. This irritation, then, might account for the spasmodic movements of the *right* arm. On the right side there was none of this localised irritation, for the affected convolutions here were mainly cut away.

Liverpool.

CASE OF PARACENTESIS PERICARDII.

BY J. W. HUNT, M.B., B.S. LOND.,
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ELLEN B——, aged sixteen, was admitted into University College Hospital, Dec. 19th, 1876, under the care of Dr. Wilson Fox, by whose kind permission the following notes, made by the physician's assistant, are published. She had had one attack of rheumatic fever when five years of age, but no history was obtained of any other serious illness; her habitual state of health had been good, and her place of abode dry and healthy. Though by occupation a needlewoman, her work was light, and carried on in well-ventilated and healthy rooms. Her present illness commenced on Dec. 16th, three days before admission, and she took to her bed on the 17th.

On admission, patient appeared to be naturally a strong healthy girl, though anæmic, and at the time much prostrated, and with an aspect of considerable pain. She expressed a belief that she would not recover, and complained of much pain in the following joints, arranged in order of severity—namely, shoulders, elbows, knees, ankles, and fingers. The joints were swollen and red, but only slightly tender. Temperature 101·4°; pulse 128; respiration 32. No abnormal physical signs were detected in the lungs, nor in the heart, beyond that its action was excited and hurried; apex beat in normal position; urine normal. Patient was immediately ordered twenty grains of salicylic acid every three hours, and this she took regularly for eight days. During this time, the patient's condition remained much the same, with very variable temperature, fluctuating between 101° and 103°; pulse 96 to 120; joint-pain only slightly diminished.

Soon after admission the *first* sound at the apex was heard to be rather roughened, and this roughness slowly increased, till on the 24th a distinct systolic murmur was heard. On the 26th the cardiac dulness had risen to the upper border of the third rib, and the impulse was rather diffused, the apex beat being felt half an inch below and a quarter of an inch inside the nipple. Slight roughness was heard over the aortic cartilage with the first sound; the patient's temperature rising to 104° on the 28th. Twenty grains of salicin, every two hours, were ordered, instead of salicylic acid; and as the temperature still continued to rise, reaching 104·6° the same evening, the patient was cold-sponged every hour, and the same quantity of salicin administered hourly. During the administration of salicin no remission took place in the joint-pain, and the roughness heard at the *base* decidedly increased in area, so as to be heard all over the cardiac region, but the patient expressed herself as being much relieved by the cold-sponging. The temperature slowly sank for a short time to as low as 102·2°, but rose again on the morning of the 30th to 103°. The salicin was counter-ordered, cold-sponging alone being resorted to. This treatment was continued for thirty-six hours, with a temporary lowering of the temperature to 101·8°; but there was no abatement in the joint-pain, and the pericardial effusion slowly increased. On the temperature recommencing to rise, and the occurrence of slight dulness with some moist râles in the left back, twenty minims of tincture of perchloride of iron were ordered to be exhibited every six hours, but with no appreciable effect, so that in the afternoon of Jan. 2nd, when the patient's temperature was 103°, the treatment was entirely changed, cold-sponging being omitted, and the following mixture substituted for the steel, to be taken every four hours: five minims of tincture of digitalis and two minims of tincture of aconite, in half an ounce of water. At this time the patient was much prostrated, lying in bed on her back, with her head slightly raised, complaining of a catch in her breath, and of considerable dysphagia, apparently reflex, as well as of severe paroxysms of darting pain under the sternum, which came on at frequent intervals.

On physical examination, percussion-note in first interspace was high in pitch, and below this absolutely dull, the upper level of absolute dulness being continued round into the axilla rather obliquely, so that the mid-axillary line was three-quarters of an inch lower than on the front of the

chest. Dulness extended laterally to the right border of the sternum; the chest was considerably bulged, with great prominence in the pericardial region; heart's impulse diffused and beating over a large area, the point of greatest intensity being localised at the nipple. On auscultation, very rough see-saw friction was audible over the whole of the cardiac region, so loud as to conceal any endocardial murmur that might be present. In axilla, breath-sounds and vocal resonance were wanting over the dull area, with ægophony distinctly heard at the upper border of dulness. The diaphragm was not depressed, there being resonance over the lower ribs. Owing to the patient's condition, the backs were not examined properly, but there was some dulness in the middle of the left back. As the patient did not improve under the aconite and digitalis, they were discontinued on the 4th, and at her own request cold-sponging was again had recourse to.

From this time forth till January 9th patient's condition showed little change, except that joint-pain almost entirely disappeared, her temperature ranging from 101° to 104°, but without regular course. On the evening of the 9th, however, a marked change ensued; the pulse, which up to this time had been of good tone, though rapid, became very hurried and weak, 160 per minute, breathing also hurried and shallow. The temperature rose from 101° in the afternoon to 104° at midnight, with complete loss of consciousness, patient appearing to be on the point of death from collapse. This being the case, and no marked improvement following the administration of brandy and ammonia in frequent doses, the physician's assistant, in the absence of the physician, decided to tap the pericardium, though it was doubtful whether the large amount of dulness described above did not depend as much on a greatly enlarged heart as on a collection of pericardial fluid. Still, as a last resource, paracentesis was effected. The point of the aspirator needle was introduced through the skin over the fifth interspace close to the sternum, and then pushed gently upwards over the fifth rib, which was used as a director, and thrust into the pericardial sac through the fourth interspace. This was immediately followed by a flow of serous fluid, but only to the extent of a few drachms, and afterwards by some blood. No more pericardial fluid being obtained on varying the position of the needle's point, it was withdrawn. Patient was ordered half an ounce of brandy every quarter of an hour. No change in symptoms, either good or bad, was produced by the aspiration, but at 11 A.M. the same morning (about nine hours after the paracentesis) there was a decided improvement. This, however, proved to be only temporary, and towards evening patient again lost consciousness, while the temperature rose suddenly shortly before midnight to 107·4°; pulse 164. It being thought dangerous to move the patient, she was not put into a cold bath, but the front of the chest was packed in a wet sheet. No marked reduction of temperature followed, though this was continued for some time, and the pulse quickened to 200. Upon this a very large quantity of ice was packed between the folds of the sheet, and continued till the temperature ceased to fall, which took place at 101°, after one hour. Early in the evening patient had begun to reject the brandy, and brandy enemata were likewise immediately returned. Patient never completely recovered consciousness after the ice-bag, and died comatose on the 11th at midday, the temperature having again risen to 104°.

At the post-mortem examination the pericardium was found very much distended, reaching upwards to the episternal notch and far outwards into the axilla, being only imperfectly covered by lung. The pericardium contained from twelve to fourteen ounces of clear reddish-brown serosity, but no pus or blood-clot. The mark of the needle was distinctly visible on the inner surface. There were signs of most intense pericarditis, the anterior surface of the heart being covered by a very thick deposit of lymph of varied arrangement. For the most part honeycombed in appearance, it presented numerous moss-like fringes rising above the surface and forming most delicate processes. The base consisted of a firm layer of lymph about one-twelfth of an inch in thickness, of rather tough consistence. The parietal layer of the pericardium presented much the same appearance. Almost exactly corresponding to the point of puncture of the aspirator needle were firm adhesions closely binding down the pericardium to the heart, which may account for the fact of so little fluid being obtained on aspiration. On the posterior surface, towards the apex, the heart and pericardium were adherent, and only separable with the exercise of considerable force; and about this part were considerable extravasations into the substance of the pericardium. Towards the base there were no firm adhesions, but fine silvery threads, fragile in texture, connected the opposed surfaces. The heart itself was very much enlarged, owing to considerable dilatation of cavities, the thickness of the walls being almost normal, but the tissue very soft and pale and easily lacerable by the fingers. There was no trace of fatty degeneration underlying the pericardium. No ante-mortem clots were found in any of the bloodvessels, though carefully looked for to some distance; but on opening the right auricle a large distinctly ante-mortem clot was found, apparently breaking down in the centre. There was no trace of endocarditis except in the following positions: both cusps of the mitral valve were covered along the free border with fine slightly injected granulations; and on lifting up each valve, the granulations on the under surface were seen to be undergoing a process of commencing acute ulceration. One of the aortic valves had a few vegetations along its border. Excepting slight collapse at the base of the left lung, both lungs were healthy. The abdominal viscera were much softened, but otherwise normal, with the exception of the kidneys, which were so much congested in parts as to give the idea of embolic patches, possibly originating in the ante-mortem clot found in the right auricle.

Remarks.—This case presents several points of interest. Firstly, in the utter failure of salicin, salicylic acid, and other drugs, though fairly tried, to produce any material reduction in temperature. The hourly cold-sponging seemed to effect as much in this way as anything else, and was most grateful to the patient. Secondly, the diagnosis between an enlarged heart and extensive pericardial effusion was very perplexing, though most important as regards the treatment. As it turned out, *both* were present to a considerable extent, as was indicated before death, on the one hand by the large extent over which cardiac friction was audible throughout, and by the diaphragm not being depressed, together with the fact that dulness did not extend beyond the right border of the sternum; and on the other hand by the fact that dulness extended so high in the thorax and so far laterally into the axilla beyond the impulse, together with the great prominence over the cardiac region. Connected with the condition of the heart was the interesting fact that the heart and pericardium were so strongly adherent at the very spot where the aspiration is usually effected. With regard to the ante-mortem clot, it most probably was formed when the patient was in such an alarming state of collapse before the paracentesis. The mode of passing the needle upwards over a rib which is used as a director is worthy of remark, for if it were followed out, it would appear almost impossible to wound the heart to any extent, unless adherent. With regard to the source of the hæmorrhage which followed the flow of serous fluid through the aspirator needle, it would be interesting if we could trace its source. It is impossible that it could have been *extra-pericardial*, as the needle never left the sac, and the hæmorrhage was *subsequent* to and not preceding the serous flow. Its origin may be traced to one of three sources: the cavity of the heart, a distended cardiac vein, or vascular granulations. The direction of the needle and the absence of any trace of injury to, or extravasation of blood in, the substance of the heart on post-mortem examination, render the first hypothesis very improbable, while the puncture of a distended cardiac vein would have been followed in all probability by hæmorrhage into the pericardial sac and increase of dulness, both of which were absent, though a careful search was made for them. It is true the pericardial fluid was found to be slightly blood-stained, but not more so than is not infrequently found in cases of intense inflammation. It appears, therefore, most probable that on moving the needle about, its point got entangled in the vascular adhesions which were afterwards found at that spot.

Many may feel inclined to regard the large amount of brandy given in the last stage as excessive, but careful watching of the case showed that its effect in prolonging life was most important, as has been still more satisfactorily shown in other cases under the care of Dr. Wilson Fox. Its

inutility in reducing temperature, even in doses of half an ounce every quarter of an hour (though not given for that object), is worthy of remark, as the temperature rose to 107·4° after the patient had taken thirty ounces of brandy in fifteen hours.

This case also shows conclusively (if further proof were needed) the immediate effect that the ice-pack has in reducing temperature, and also the inutility of trusting to the simple wet pack in severe cases. It is not impossible, though scarcely probable, that the result might have been different if the physician's assistant had, immediately on the rise of temperature, plunged the patient into a cold bath, following the example of Dr. Wilson Fox, who successfully resorted to this treatment in a case in which the temperature rose to 107°, and which was further complicated by the presence of a double pneumonia, and a double pleuritic, as well as a large pericardial, effusion. In the present case, however, the ice-pack was resorted to through fear lest the moving of the patient should bring on immediate and fatal collapse.

SUCCESSFUL CASE OF

BLOODLESS LIGATURE OF THE FEMORAL ARTERY FOR TRAUMATIC ANEURISM.

BY MARTIN COATES, M.R.C.S., &c.,

SURGEON TO THE SALISBURY INFIRMARY; FORMERLY LECTURER IN ANATOMY AND MIDWIFERY AT L'ÉCOLE DE MÉDECINE, PARIS.

(*Reported by* Mr. HARCOURT COATES, M.R.C.S.)

T. A——, a farmer's son, aged sixteen, was cutting a stick, when the knife slipped, and penetrated deeply the inside of the thigh, about an inch and a half on the inside of the femoral artery, just before its entry into Hunter's canal. The wound in the integument was nearly parallel to the course of the artery, and about half an inch in length. Profuse arterial hæmorrhage occurred, soaking through the trousers and filling the boot. An old soldier who was present tied a handkerchief tightly over the wound, and the lad was carried home on a hurdle. Mr. Tarzewell, of Sturminster Newton, was immediately in attendance, and applied a pad of lint and a bandage, which at once arrested the hæmorrhage.

Sept 5th, 1876.—Mr. Coates was called in consultation, and observed a tumour, which pulsated obscurely, occupying the middle and part of the lower third of the thigh, and having over its surface an evident aneurismal bruit. The wound of the integument was almost healed. The patient was pale, but free from pain. Digital compression was tried for a short period of time, but was discontinued on account of the excessive pain produced by it.

8th.—Mr. Coates again visited the patient, who was much worse. The pain was excruciating; the tumour had increased in size, and now extended into the upper and lower thirds of the thigh; there was also some œdema of the leg and thigh. Methylene having been administered, Mr. Coates, being assisted by Mr. Bigge, Dr. Coates, Mr. Tarzewell, and myself, proceeded to operate as follows:—Esmarch's bandage having been applied, the wound was enlarged upwards and downwards for about three inches each way. The knife was carried fairly into the aneurism, and about three double-handfuls of clots were removed and the cavity carefully sponged clean. Immediately the main artery was clearly seen, with a slit on its inner side about half an inch in length. The vein was behind the artery, and had escaped injury. The artery was secured above and below the wound with catgut ligatures. When the band was removed there was a little hæmorrhage from a small branch of the vein, which was at once secured with a Chinese-silk ligature. The wound was sponged out with carbolic solution, and loosely plugged with lint.

Next day the dressings were removed and the plug withdrawn from the wound. There had been no pain or hæmorrhage, and the appetite had to a certain extent returned. The cavity of the wound was syringed out daily with a carbolic solution (1 to 40). Pulse 120; temperature 98·4°. On the 11th the patient was progressing favourably; the wound looked healthy; there was no pain; pulse 120; temperature 98·4°. He was seen on the 18th and 25th of September and on the 9th of October, and never had a bad symptom. The wound being nearly healed, and the appetite and spirits being good, the patient was left to the care of his own medical attendant.

Mr. Coates remarked:—"Esmarch's apparatus converted in this case an operation that, without its aid, would have been difficult, bloody, and dangerous, into a comparatively easy, safe, and bloodless one. It is applicable to a wounded artery of any limb, and renders an operation which was formerly characterised by haste and confusion one of deliberation and certainty. Had I not been able to discover the wound in the artery I should have had the elastic cord momentarily loosened to allow a small jet of arterial blood to take place, enabling me to detect the small wound of the vessel, and I should then have had it tightened and proceeded to ligature the vessel."

Mr. Marshall's formidable description of this operation, in his book, enables one to realise its terrible nature. A friend of Mr. Coates's saw a patient bleed to death on the operating-table of a metropolitan hospital from hæmorrhage. Every hospital surgeon must have frequently witnessed the uncertainty of the finger and old tourniquets for compressing the main arteries during a protracted operation: a certain tourniquet presents itself in Esmarch's apparatus.

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

RECURRING CHANCRE OF THE PENIS, FOLLOWED BY EPITHELIOMA.

(Under the care of Mr. HENRY SMITH.)

THE following case (for the notes of which we are indebted to Mr. Duncan, late surgical registrar) is of clinical interest, inasmuch as it not only proves that a morbid growth presenting all the external physical characters of the primary syphilitic lesion may recur several times in the site of the original inoculation, but shows also that the recurring growth may ultimately present the characters of epithelioma.

A man, aged sixty-five, was admitted on Dec. 13th with epithelioma of the penis. Seven years before he contracted a chancre, which was followed in a month by a secondary rash on the skin, sore-throat, and "cramps" in the legs, which were especially severe at night. He was treated by a chemist; the medicine taken did not make the gums sore or cause salivation. The chancre gradually healed. Twelve months afterwards the chancre reappeared in its old site, after a drinking bout. It healed up within three weeks. After that date the chancre recurred about four or five times. The patient stated distinctly that the reappearance had always been preceded by drinking bouts, and that it had never been due to any fresh sexual connexion. The chancre always disappeared again within a month. Sometimes he had been treated by chemists; at other times he had no treatment whatever. The secondary rash also reappeared four or five times, but not necessarily coincidently with the reappearance of the chancre. It may be noted that the patient's foreskin had always covered the glans penis. No family history of cancer was obtainable.

This attack commenced six weeks before admission with a sore in the usual site. It did not evince any tendency to heal up within the usual period, but, on the contrary, had spread, and had also been the seat of very severe pain, a symptom which had not been present previously. Soon after the sore appeared a sharp attack of hæmorrhage occurred from the part, but he did not lose any flesh.

Dusky brown stains were scattered over the front of the chest and abdomen. The left half of the glans penis was extremely hard throughout. On the surface it presented an irregular, eroded, and slightly nodulated ulcer, the base of which was extremely hard, and covered in parts with a greenish slough. The edges were upraised, everted, hard, and slightly nodular. There was very little discharge from the parts. The hardness extended backwards, and involved the anterior half of the penis. It ceased by gradually diffusing into the normal tissue. The part was very painful and tender on pressure. Along the roof of the penis there was likewise an irregular, interrupted, and painful cord of hardness. The glands in the groin were hard and lobulated, and a few seemed of larger size than those usually met with in syphilis. The patient was thin and cachectic, his features sharp and pointed.

Amputation of the penis was proposed to the patient, but the latter would not consent, and therefore was discharged from the hospital on Dec. 23rd.

LAMBETH INFIRMARY.

COMPRESSION OF THE BRAIN; DEATH.

(Under the care of Mr. HAMERTON.)

THE circumstances of the following case are related in the order in which they occurred, because they all tend to show the propriety of exercising extreme care in distinguishing the effects of drink from those of injury to the brain.

On the 23rd of June, at 11.15 P.M., a man was taken into the infirmary on a stretcher by the police. The only particulars that were given were that the man had been charged that evening with being drunk and incapable, and that after he had been three or four hours in the cell—where he had fallen asleep sitting on a bench—the constable in charge found him on the floor insensible. The divisional surgeon, who had been sent for, recommended his immediate removal to the infirmary.

On admission the man was at once laid on a bed in one of the wards and wrapped in hot blankets, with hot water-bottles to his feet and a sinapism to the nape of the neck. He was completely insensible, the surface was cold and pale, the pulse slow and feeble, the pupils unequal, left dilated, right contracted, and neither responded to stimulus of light; the conjunctivæ were insensible to the touch; mouth drawn slightly to the left side; muscles of the whole of the left side of body rigidly contracted, fingers drawn into palm; right arm rigid, fingers also drawn into palm; the right leg was flaccid and movable, but no movement could be obtained by tickling the sole of either foot. Breathing stertorous. He could not swallow; fluids introduced into the mouth produced spasmodic coughing. There were two wounds of the scalp in the occipital region, one of which had evidently been recently inflicted, and exposed the bone on the left side of the external occipital protuberance; there was a silver wire suture in it, and the edges were ragged and bloody; the other, on the right side, was not recent, being covered with pus. The suture was removed, and both wounds were carefully searched for traces of fracture, but none could be detected. There were no bruises on any other part of the body. During the examination there were involuntary evacuations of urine and fæces. At 8 A.M. the following day the insensibility and rigidity were as complete as before, but he was sweating profusely, the sheets and blankets being wet through. The night superintendent reported that this commenced at 3 A.M., and in consequence the bedding had to be changed several times. At 9.40 A.M. the nurse reported that the man was dead, and added that the whole body became convulsed a moment or two before its occurrence.

Autopsy.—There was a large clot beneath the dura mater covering the whole of the left hemisphere. On removing the dura mater, a smaller clot, about a couple of inches in diameter and the third of an inch in thickness, was found beneath it and over the situation of the wound on the left side; this clot was much firmer than the large clot, and was not adherent. The vessels of the brain were injected, and there was a little clear fluid in both lateral ventricles; otherwise the brain appeared normal. Lungs congested; signs of phthisis in both apices. Heart covered with fat externally; walls thinned; valves normal. Liver cirrhotic. Kidneys pale; cortex much thinned. Stomach empty; the mucous membrane deeply congested.

The day after his admission, the constable who had charged him gave the following account. His attention was first called to the deceased at 4.30 P.M. on the 23rd, in a public-house, where he was drinking; he was then very much the worse for liquor, and in attempting to walk from the counter towards the door he fell backwards, striking his head with great violence against a metal rail. The constable picked him up, and found him insensible, unable to stand, and bleeding from a wound on the left side of the back of his head. He had a bandage round his head, which covered an old wound. After a little time he appeared to revive, and was able, with the assistance of the constable, to walk to a surgeon, who, finding that the man had been drinking heavily, used the stomach-pump and brought up a large quantity of spirit. He then bathed his head with cold water, and brought the edges of the wound together with silver wire. The man was then sensible enough to give his name and address, and to say he had taken enough drink to make a beast of himself. He then walked to the police station with the constable, and was put in a cell, where he was (as before stated) found insensible. He had been known to the police for some time as a confirmed drunkard.

Remarks.—One of the chief points of interest about this case was the fact of the man having been rendered insensible by a blow, then so far recovering as to be able to walk to a surgeon, a distance of a quarter of a mile, to give him his name, address, &c., to walk with constable to the police-station, fully another half-mile; then being overcome with drowsiness, which terminated in complete coma and death. This may be accounted for by supposing that, when the blow was received, a small extravasation of blood took place beneath the dura mater, giving rise to the first insensibility, but that this did not proceed to any great extent, owing to the feeble action of the heart induced by the large quantity of spirit swallowed, but that when the stomach was emptied, cold affusion applied to the head, and fresh air received during the walk, the heart's action became more powerful, giving rise to a repetition of the bleeding, which caused the gradually increasing insensibility, coma, and death. The facts revealed at the autopsy would tend to strengthen this view.

NORTH STAFFORDSHIRE INFIRMARY.

LACERATION OF THE BRAIN WITHOUT PARALYSIS; AUTOPSY.

(Under the care of Mr. ALCOCK.)

THIS case (for the notes of which we are indebted to Mr. Frost, house-surgeon) will prove interesting, especially as showing that an extensive lesion may exist in the brain without causing any paralysis.

John G——, said to be forty, but looking ten years older, was admitted on October 12th, 1876, with a compound dislocation of the knee, sustained by a fall from the summit of a blast furnace. There was also a superficial scalp-wound 3½ inches in length a little anterior to the site of the left half of the coronal suture. No other injuries were detected. The man was unconscious, the pupils unaffected, breathing natural. The patient was said by his friends to be a great drunkard. Mr. Alcock amputated through the lower third of the femur.

The patient had no sleep until the afternoon of the following day, but lay constantly tossing about, trying to throw off the bedclothes, and taking no notice when spoken to. The pulse was very weak. Ordered three ounces of brandy daily. As the urine was retained, a catheter was passed; the urine was found to contain albumen, but this proved to be only temporary, as it had disappeared a few days later, and the water remained normal until death. He slept for short periods during the afternoon and in the night, being very restless in the intervals.

The following morning (the 14th) he seemed for the first time to hear when spoken to, and turned away his head impatiently, as if wishing to be left alone; in a short time he would abruptly turn and begin a sentence, generally a question, but be unable to finish it for want of a word: thus, "Have you got any——?" he would then hesitate and

repeat the question in the same way. This symptom lasted throughout the case.

The following evening (15th) he became very troublesome, constantly endeavouring to get up, but would always lie down if told to do so peremptorily, but would repeat the attempt in a few moments.

On the evening of the 16th there was arterial hæmorrhage from the stump. The flaps, the edges of which were gangrenous, were separated, and the bleeding, which came from several small vessels, ceased on the application of cold; about six ounces of blood were lost.

His appetite now began to improve, but he would drink nothing without brandy. He seemed to take everything as a matter of course, and neither knew, nor cared to know, where he was. When thirsty he called for drink in a most peremptory manner. He was very obstinate in refusing to put out his tongue; said "No," and shook his head. He did not recognise his friends or relations.

On the 24th he began to have occasional attacks of violent pain in the abdomen and diarrhœa; relieved temporarily by opium enemata. His mental condition remained much the same, but he gradually became weaker. Bronchitis set in, and he was too feeble to expectorate. He gradually sank and died on Nov. 14th, the thirty-third day from the date of the accident.

Autopsy, thirty-two hours after death.—Brain: There was a large amount of serum in the arachnoid cavity. Immediately above and behind the upper extremity of the superior temporo-sphenoidal convolution on the right side there was a patch of ecchymosis, the size of a florin, in the pia mater. The brain-substance beneath it was natural. The portion of the brain corresponding to the lower part of the squamous portion of the temporal bone on the left side was soft and pulpy, being easily washed away by a stream of water, leaving a cavity with ragged walls, the area of which equalled that of a half-crown, and about a quarter of an inch in depth. The ventricles contained an excess of serum. The brain-substance was very anæmic throughout. Lying in the arachnoid cavity in the posterior fossa of the skull on both sides, and extending also to a slight extent above the lateral sinuses, was a thin layer of coagulum, of a brown colour, easily wiped off, and showing the arachnoid beneath it natural. Lungs tenacious; mucus in bronchial tubes. Valves of heart competent; calcareous deposits in mitral valves. Slight increase of fibrous tissue of liver. Cortices of kidneys large and pale.

KENDAL HOSPITAL.

TWO CASES OF EXCISION OF THE KNEE-JOINT.

(Under the care of Mr. WALTER ILIFFE.)

CASE 1.—*Suppurative inflammation of knee-joint after a blow; excision; recovery.*—J. B——, engine-driver, aged forty-three, stated that when about the age of twenty-nine years he received a severe blow on the knee-joint. A small abscess made its appearance and discharged more or less during a period of six months, after which time it healed. Since then he has been unable to get about without the help of crutches, and the slightest pressure from the foot caused him the most intense agony. He had been in a hospital upon three occasions, when rest and fomentations were employed, but without any benefit. After a short time the knee-joint became much enlarged, and when the man came into the hospital the circumference at the condyles was half as large again as that of the sound limb. He was quite unable to walk, and the least touch, either directly or by pressure from below, was "unbearable." There were no sinuses, and the old abscess had quite cicatrised; this condition of things had existed for nearly twelve years.

The man was kept under close observation for nearly a fortnight; during this time he complained of deep-seated pain, especially at night, and a general aching of the whole limb, and, as he himself before stated, the slightest pressure was "awful." Mr. Iliffe concluded that the articular surfaces were much implicated, but thought that it was somewhat remarkable that this condition had lasted so long without materially affecting his general health. The tongue was clean, the appetite good, and the body well nourished; there were, in fact, no signs of constitutional disturbance.

Mr. Iliffe hesitated to operate, as he believed there was only ligamentous union, but being pressed by the man to do something, he determined to excise the joint. The operation was performed in the usual way, except that a semicircular flap was made an inch below the patella, and the incision carried low down and well back on the condyles of the femur. After the patella was dissected out and the lateral ligaments divided, the joint was opened, when it was found that ligamentous anchylosis had taken place. There was a distinct band of fibrous tissue connecting the articular surfaces and considerable thickening of the synovial membrane, while bands of adhesion had formed all around the joint. Upon removing an inch and a half from the femur a large quantity of a yellowish infiltration was discovered, and there can be no doubt that caries of the cancellous texture was in active progress. After removing an inch from the tibia the limb was put up in a modification of a splint, used by Dr. Eben. Watson, of the Glasgow Royal Infirmary.

The case was treated thoroughly antiseptically, and at the end of ten weeks the patient was without the splint, and could lift his leg, which was perfectly straight. At the expiration of three weeks he could get about with a crutch, occasionally resting the shorter limb, and he now walks with a high boot strongly and well, and has resumed his occupation, from which he had been incapacitated during a period of nearly twelve years.

Mr. Iliffe remarked that this was an uncommon case. He was almost deterred from operating by believing that he had only ligamentous anchylosis to deal with, and this condition was also most manifest. There can be but little doubt that the commencement of mischief was due to partial destruction by ulceration of the articular cartilage; it is less easy to account for the extensive infiltration of the cancellous texture, and rather remarkable that no outward sign should exist of such active disease.

The second case will be given in a future number.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of this Society was held on Thursday, March 1st, 1877. The chair was taken by the President, Sir James Paget, at 8 P.M., Sir Joseph Fayrer and Dr. H. G. Evans being nominated by him as scrutineers, and the ballot for the election of officers and Council for 1877-78 immediately opened.

The balance-sheet for 1876, which had been previously circulated among the fellows, was taken as read, and the Hon. Secretary, Mr. John Whitaker Hulke, at once began reading the Annual Report of the President and Council. It stated that the number of deaths among the fellows had been seventeen, including two honorary, nine resident, and six non-resident fellows; and that nineteen new fellows had been elected, consisting of two foreign honorary, thirteen resident, and four non-resident fellows. The total number of fellows is now 651.

The ordinary receipts and expenditure varied little from those of previous years. The volume of Transactions, owing to expensive illustrations, cost more than that of the previous year by about £100, and that, with some items of extraordinary expenditure, had more than consumed the cash balance in hand at the commencement of the year. The report referred to the near approach of the time when the Council would have to award the Marshall Hall Memorial Prize, for the best original work done during the previous five years, and recorded in the English language, in anatomical, physiological, or pathological research relative to the nervous system. In reference to the Committee appointed to examine into the Relations existing between Membranous Croup and Diphtheria, it stated that the Committee had held several meetings during the past year, and

had been engaged in collecting evidence bearing on the more important facts at issue. To facilitate their investigations they had formed themselves into clinical and morbid anatomy sections, and though some time must elapse before the Committee will be able to make a report, they hoped that facts would be established which will be of great value in determining the identity or non-identity of the disease. The Council's report also referred to the hospitable reception the delegates of the Society, Dr. Hare, Dr. Barnes, and Mr. Brudenell Carter, had received at Philadelphia, and the great success of the Medical Congress held there last autumn. Two portraits of himself and of the late Mr. Thomas Alcock, presented by Sir Rutherford Alcock to the Society in 1866, under an erroneous impression that the Society was forming a gallery of oil paintings of its fellows, were recommended to be returned to him; and a feeling allusion was made to the death of the late Dr. Sibson, who had for some years been one of the honorary librarians of the Society. In relation to the library, the report stated the number of new books added to the library in the year to be 435, and that the new catalogue and index were progressing, and would be ready for the press in the course of the summer. It also mentioned that the usual triennial inspection of the library had been made, and its management found to be in good working order and efficiency; finishing with statistics of the number of works and volumes in the library, the number lent out, and the number of visitors to the library, similar to tables given at previous intervals of three years. The adoption of the report was moved by Mr. W. S. Savory, seconded by Mr. John Croft, and a separate motion for returning the portraits to Sir R. Alcock, by Dr. Miller Ord and Dr. Silver, and both carried, *nemine contradicente*.

PRESIDENT'S ADDRESS.

Sir JAMES PAGET commenced by taking a review of the past history of the Society, particularly contrasting its state nearly forty years ago, when he himself became a fellow, with its present condition, and he found only changes which the lapse of time accounted for, and which were mostly for the better, the papers having grown more elaborate, the methods of inquiry more various and minute, and the investigations more deep and thorough. In alluding to the inevitable controversy which must ever exist between seniors and juniors in their estimation of each other's work, which, if passionless, must ever do more good than harm, he referred to the young societies growing up around the parent society, with which he felt sure there was no ground for conflict. The communications to all societies might broadly be divided into the less and more elaborate; both were useful if containing truth, and he considered it the duty of this Society to seek the more elaborate. It would also be right to receive them if care were continued to be exercised in admitting them to be read, still greater care in selecting for publication in the Transactions, and liberality in publishing those selected. Mistakes might sometimes be made, but they were rare, and should be endured for the sake of maintaining the honour attached to having a paper in the Transactions, which, he might add, were by far the largest and best series of volumes published by any medical society of the present or any past times. In the institution of other societies he could see no sign of the Society having suffered damage, and he could see many signs that medical science had gained great advantage. The only point in which the Society could be said to have suffered was that the meetings were less fully attended, and the discussions less animated; but this might partly be explained by the greater completeness of the papers, the minuteness of their details, and the elaborateness of their argument, which were more likely to render the reading dull, and were less fit for discussion, but this was a result that must be endured in the promotion of knowledge. He instanced the Royal Society, which originally embraced every branch of natural science in its labours, but now there was scarcely a division of natural science without a society devoted to its cultivation; nevertheless, the Royal Society was never more prosperous, its fellowship never more desired, its Transactions were never more rich, or its influence on science more distinct. That Society should be their example, and its position their aim.

The President then gave brief memoirs of the many important fellows who had been lost to the Society during the past year. They included the following names:—Mr. Geo. Nayler, of Savile-row, Surgeon to the Hospital for Diseases of the Skin, Blackfriars; Sir John William Fisher, of Park-lane, late Surgeon in Chief to the Metropolitan Police; Mr. George Southam, of Manchester, Surgeon to the Manchester Royal Infirmary, and Professor of Surgery at Owens College; Mr. Wm. Ludlow Roots, of Kingston, Surrey, Surgeon to the Royal establishment at Hampton Court; Dr. John Webster, Physician to the Scottish Hospital, to whom (he said) the Society owed some respect for an almost unfailing attendance at its meetings for above thirty years; Mr. Victor de Méric, Surgeon to the Royal Free Hospital and to the German Hospital, Dalston; Dr. Thomas Laycock, Professor of the Practice of Physic in the University of Edinburgh; Dr. Henry Wyldbore Rumsey, of Cheltenham, the indefatigable worker in State Medicine and sanitary reform; Mr. William Smith, of Clifton, Bristol, for some time Surgeon to the Chesterfield and North Derbyshire Hospital; Mr. William Harvey, the well-known aural surgeon, and the real author of the system known as Bantingism, though it was not till long after that treatment had gone out of fashion that his work on "Corpulence" was published; and Dr. John Butter, of Plymouth, Physician to the Plymouth Royal Eye Infirmary.

The President also gave obituary notices—at greater length, with more fulness of detail, analysis of characters, and feeling allusion to the usefulness of their life and works, and the lessons which they taught, of two of the foreign honorary fellows of the Society, Dr. Louis Stromeyer, Director-General of the Medical Department of the Army of Hanover, and Professor Christian Gottfried Ehrenberg, of Berlin; and of three of its resident fellows—Dr. Francis Sibson, Consulting Physician to St. Mary's Hospital, who was one of the hon. librarians of the Society at the time of his death; Dr. Robert Lee, of Savile-row, late Obstetric Physician at St. George's Hospital, one of the Society's oldest members; and Sir William Fergusson, Bart., LL.D., F.R.S., Professor of Surgery at King's College Hospital.

In speaking of Dr. Stromeyer, the facts were noticed of his father having also been an honorary fellow of the Society, and the introducer of vaccination into Germany. Notices were also given of Stromeyer's love for England, and his unaccomplished wish to study in London, his education under Blumenbach, Henle, and Langenbeck, his visits to Goethe, and the interesting character of his "Recollections" of the German surgeons and surgery of fifty years since, and of his visit to this country and notices of the social and professional life of London; also his first section of the Achilles tendon in 1831, an operation which marked the beginning of the whole system of subcutaneous surgery; the rapid increase of the practice of tenotomy in this country by the labours of Dr. Little after the cure of his clubfoot by Stromeyer in 1836; Stromeyer's dislike of specialising, and devotion to the larger studies of surgery, fearing he might else be called a mere tendon-cutter; and his modesty in maintaining his claims of priority in the discovery of subcutaneous surgery. After detailing his progress at Erlangen, Munich, and Tubingen, in years subsequent to 1838, he referred to the insurrection of 1848, when he commenced his distinguished career as a military surgeon, with Esmarch, his son-in-law, as one of his assistants, and collected the materials of his valuable "Maximen der Kriegsheilkunst"; his devotion of himself, after 1854, to an entirely military career on his appointment as Director-General of the Medical Department of the Army of Hanover; his last visit to England in 1872, and his lectures at St. Thomas's; and the honours he received on his jubilee in April, 1876, from all ranks in Germany and from among ourselves, two months after which, while still at work, he was seized with apoplexy and in a few minutes died.

In speaking of Gottfried Ehrenberg, the President referred to his early devotion to microscopic studies, his first great discovery and demonstration of the sporules of the lowest fungi, the vast results in number of species of plants and animals obtained in his scientific expedition to Africa for the Royal Museum of Berlin, and the appearance of his most important work on the Infusoria in 1838, which enlarged in every direction the field of microscopic inquiry. In pointing to the illustrations of his marvellous industry

in the 268 titles of papers by him in the Catalogue of Papers of the Royal Society, the speaker said that in the history of microscopy his name must be placed next to that of Loewenhoeck.

Of Dr. Sibson the President said it was difficult to tell briefly any thing worthy of his life and good deeds. In all his professional work and in all the offices he filled, he was vigorous and abundant in discharge of duty, while the rare charm of his personal character moved many to work with him, and multiplied the power of his own work. From 1835 to 1848 he was resident surgeon to the Nottingham Hospital, where he gained much of that knowledge of the mechanical physiology of respiration, and the position of the internal organs in health and disease, which culminated in the publication of his "magnum opus, the Medical Anatomy. His passing the examination for M.B. and M.D. at the London University in the same year (1848) with honours in both—a notable achievement, considering the active life of practical work in which he had been engaged,—his nomination to the Senate in 1865, and his constant attention to the business of the University, and also of the College of Physicians, of which he became a fellow in 1853; his successive delivery of the Gulstonian, Croonian, and Lumleian Lectures, and his enormous labour as Secretary of the Committees on the "Nomenclature of Diseases" of which undertaking he was the principal originator, and of which, as a work of more than national importance, the principal was due to him, were noticed. After referring to his connexion with St. Mary's Hospital and the British Association, and their own and the Royal Society, in all which his labours were not less vigorous, and in every office of which he always set himself a high standard of duty and fulfilled it, the President summed up the characteristics of all his work, his devotion, and intense labour to determine many questions, which will in consequence not need to be investigated again: "he never flinched from any duty, but when he saw it was to be done he looked rather to see how large it could be made, and no man followed better the advice of the King Preacher, 'Whatever thine hand findeth to do, do it with thy might'; and surely no one ever worked harder with so light and genial a heart. Who of us can forget the gentleness and enthusiasm of his social life, his fervent greetings, his words of affection, the sincerity of which was proved by the whole tenour of his pure unselfish life? He was a many-sided man, and on all sides good."

Dr. Robert Lee was one of the oldest members of the Society, and had contributed twice as many papers to its Transactions as any living fellow. He had also had the honour of attracting the three largest meetings (about 1850–51) which ever assembled in the room of the Society to discuss his papers upon the Use of the Speculum and upon Ovariotomy. "Many of us," said Sir James, "can remember how his dissection of the nerves and ganglia of the uterus, and afterwards of those of the heart, seemed to engage his whole mind, and inflame it, not only with the love of truth, but with scorn for those who could not see the truth where he did. For Dr. Lee was a strong instance of that fault which sometimes goes with honesty; he was so sure that his convictions were the result of hard and well-intentioned study, so sure that he sought the truth, and sought it in the right way, that he was wholly unable to believe that anyone with equal honesty and almost equal industry could arrive at conclusions different from his own." His preparations are in the University of Cambridge, to which a few years ago he presented the whole of his anatomical collection." A passing reference was made to the Royal Society controversy between him and Dr. Snow Beck on the nerves of the uterus, and the notice finished with a criticism on the character, value, and utility of his works in spite of his excessive opposition to all innovations.

In referring to the last name on his list of deaths, that of Sir William Fergusson, the President did not wish, he said, to go through a cold, bare narrative of the life of one so recently with us, and for whom all had so sincere a regard, but would confine himself to a study of his character and work. Looking at him as the chief practical surgeon of his time, he noticed his remarkable endowments by nature, which he educated to the highest degree of sensitiveness and mobility, not only by the long hours spent in dissecting, but in his amusement in music and fine carpentry, his familiarity with the character and relations of every structure, his calmness and self-control, his love of mechanics, which made him so good a judge of apparatus; his orderliness, which caused his apparatus to be always complete and in its place; and altogether, his sensibility, dexterity, calmness, and mechanical power, which rendered him more fitted to be a great surgical operator than any one that he (Sir James Paget) had known. To these he owed his first reputation, but the publication of his "Practical Surgery" showed the wide range of his surgical knowledge, and he soon, in important cases, showed his power of diagnosis, which, associated with his caution, made him a safe surgeon in cases where good operators are sometimes apt to be dangerous. He had such personal and social qualities as commanded the confidence of the public; he was gentle in voice and manner, cheerful, warm-hearted, and kindly in his judgment of others, firm in his friendship, and had a tender-hearted love of home. He had great personal influence as a teacher, and his pupils admired him and boasted of him, though his oral teaching was not effective, and he addressed the eyes much more than the ears of his class. "He will always deserve a high place in the history of surgery for those improvements and changes which include his operations for hare-lip and cleft palate, excision of joints, especially of the hip and knee, and removal of the upper jaw with the labio-nasal incision, and generally for the simplicity he encouraged in all apparatus. But his chief influence will be through our distinct remembrance of him; for his good qualities were such as none can forget who had the happiness of knowing him personally."

At the conclusion of the address a vote of thanks to the President, moved by Mr. Marshall and seconded by Mr. Erichsen, in highly eulogistic terms, was carried with great applause. Thanks were also voted to the retiring Vice-Presidents and other members of Council: Dr. E. Ballard, Mr. Charles Brooke, Mr. John Marshall, Dr. Wilson Fox, Dr. Grailly Hewitt, Mr. John Couper, Mr. George Gaskoin, and Mr. Thomas Smith. In proposing the latter vote of thanks (which was seconded by Dr. Stewart), Mr. Charles Hawkins incidentally alluded to the singular fact that just sixty years ago the offices of president of the College of Surgeons and of the Medical and Chirurgical Society were held contemporaneously by the celebrated Henry Cline, who had also during his presidency of the Society delivered the Hunterian oration, in exact parallelism with the retiring president, Sir James Paget.

The result of the ballot for officers and Council for 1877-8 was announced as follows:—President: Dr. Charles West. Vice-Presidents: Dr. R. P. Cotton, Dr. William Wood, Mr. J. Cooper Forster, Mr. John Wood. Treasurers: Dr. Wm. Wegg, Mr. John Birkett. Secretaries: Dr. John Harley, Mr. Hulke. Librarians: Dr. Murchison, Mr. Holmes. Other members of Council: Dr. Barnes, Dr. Lionel Beale, Dr. Begley, Dr. Greenhow, Dr. William Ogle, Mr. Barwell, Mr. Durham, Mr. Richard Phillips, Mr. Soelberg Wells, Mr. Erasmus Wilson.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society, on the 6th inst., was very numerously attended. The President, Dr. Murchison, occupied the chair, and the greater part of the evening was devoted to the paper contributed by Sir William Gull and Dr. Sutton upon "Changes in the Spinal Cord and its Vessels in Arterio-capillary Fibrosis." In the ante-room a large series of microscopical preparations and drawings were displayed, illustrative of the changes described, and showing these changes in all stages—from that of simple exudation and œdema to that of well-marked sclerosis. Discussion upon this paper was deferred until the next meeting, when a paper will be read by Dr. George Johnson upon the Changes which occur in the Vessels in Bright's Disease. The other business of the evening involved the exhibition of specimens from a case of Suprarenal Apoplexy by Dr. Greenhow, and an account by Mr. Godlee of his careful experimental research into the organisms met with in vaccine lymph, and their cultivation.

The proceedings commenced by Dr. GREENHOW exhibiting some specimens from a case of Chronic Interstitial

Pneumonia associated with Hæmorrhage into the Suprarenal Capsules The patient, a brass engraver, twenty-nine years of age, was admitted into the Middlesex Hospital on Dec. 12th, 1876 He had suffered from winter cough for three years, but had otherwise enjoyed good health until about three months before admission, when he began to lose flesh and strength, and to suffer from shortness of breath. He was a spare, ill-nourished, pallid man, very prostrate, and breathless on exertion. There was no cough nor expectoration. The pulmonary resonance was impaired, especially over the posterior part of the lungs. There was no enlargement of the liver, spleen, or lymphatic glands, and the blood was deficient in red corpuscles, and apparently contained an excess of white. The patient became progressively weaker, had a syncopal attack on Dec. 20th, and sank rather rapidly on the same day. At the post-mortem examination the lungs were found to be very voluminous, and throughout in a state of diffused fibrosis, the induration being most marked on the pleural surface, then in the interlobular septa and around the bronchioles and blood-vessels, but to a far less extent in the alveolar walls. The bronchial glands were tough and pigmented; and the visceral pleura on each side was traversed by a network of opaque white cords, evidently plugged lymphatics. There was enlargement of the mesenteric and retro-peritoneal glands. The right suprarenal capsule was adherent to the kidney and surrounding tissues; it was enlarged, firm, and contained in its central portion a recent blood-clot the size of half a walnut; histologically, it was seen to be traversed by much fibrous tissue between the cell-columns, which were atrophied, whilst the medullary cells were widely separated by new tissue, and the blood-vessels presented notable thickening of their walls. The left capsule, enlarged to four times its natural size, was converted into a sac filled with recent coagulum Its outer membranous wall was adherent to the kidney and surrounding tissues. No caseation occurred in either capsule. Dr. Greenhow believed the lesion in the right capsule to be an earlier stage of Addison's disease than he had ever observed or found on record in any former case, and thought it had contributed to cause the fatal termination; for the great prostration and faintness which for several days preceded death, and which are characteristic symptoms of Addison's disease, could scarcely be attributed to the interstitial pneumonia. He did not regard the hæmorrhage into the capsules as tending to the fatal issue, unless it produced the fainting on the morning of the patient's death; and he remarked that several of the cases of suprarenal apoplexy occurred in connexion with chronic lung disease. The pulmonary lesions were an instance of chronic interstitial pneumonia due to obstructed lymphatics, to which Dr. Moxon had drawn attention.—In reply to the President, Dr. Greenhow stated that a small hæmorrhage had also occurred beneath the pleura.

Mr. RICKMAN GODLEE read a communication upon the Organisms present in Vaccine Lymph, and their cultivation in various media. He said that nearly four years ago he commenced a series of experiments with the object of determining whether by a process of cultivation any organism could be obtained from the blood or juices of patients suffering from diseases in which those bodies are supposed to play an important part. It was thought that if the process proved successful some distinctive characters either in appearance or reaction might be developed, as the result of their growth, in some of the fresh media into which they were to be inoculated. Mr. Godlee then detailed the precautions observed in introducing into flasks that had been superheated the organic fluids employed, which were then kept at a temperature of 212° for a longer or shorter time, according to the putrescibility of the fluid; a cap of cotton wool over the mouth of the flask sufficing to exclude any atmospheric germs. In that way milk, turnip infusion, and other fluids may be kept unaltered for an indefinite time; while urine and hydrocele-fluid, which are pure in their source, do not require the preliminary boiling. The vessels used for the cultivation experiments, and into which the fluids from the flasks were decanted, were of the size of small test-tubes, covered by caps formed out of the lower ends of larger tubes. It was found a sufficient protection, after superheating these tubes, to guard them from draughts by placing them each under a small bell-jar. In examining blood, precautions were taken to exclude all external impurities, the skin of the ball of the thumb being first washed with a solution of carbolic acid in ether, and a part of the carbolised epidermis then shaved off by a previously superheated knife; a puncture was made in the centre of this area, and the blood collected in a capillary tube. In this way, blood obtained from two cases of ague, two of pyæmia, one of typhoid fever, and two of erysipelas, yielded no result in the cultivation experiments. The pus from three cases of acute necrosis was examined, and in one it contained innumerable chains of granules. No result, however, followed upon cultivation. It was then determined to repeat the observations with some fluid in which the medium of infection was known to exist, and for that purpose vaccine lymph was used, which, since the observations of Cohn, has been known to contain granular bodies, which increase in number in lymph which has been kept some days. Sanderson believed, from his experiments, that the fluid part of the lymph was unable to originate the disease, and concluded, therefore, that the contagium itself was present in the particles that subside in the diluted lymph. By the process of inoculation of fluid media (milk, turnip infusion, or hydrocele-fluid) with vaccine lymph, and keeping the fluid at a temperature of 90° to 100° F., an organism can generally be developed closely resembling that observed in stale lymph. Mr. Godlee exhibited specimens of this organism, which consists of granules, varying in size in different fluids, and tending to aggregate in groups of four. Milk, a day or two after the inoculation, loses its natural opalescence, and at the end of a week becomes either less diffluent than before, or else completely solid, its reaction being almost unaltered, or perhaps slightly more acid. In urine the reaction becomes alkaline; much phosphates are deposited. In hydrocele-fluid a granular deposit forms at the bottom of the tube; the fluid becomes turbid; a similar change occurring in turnip-infusion. The lymph was obtained in the earlier experiments by carbolising the skin over the vesicle and puncturing it with a superheated lancet, and collecting it in capillary tubes; but these precautions were not all carried out in the later ones. After giving a summary of these experiments, Mr. Godlee said that, with a view to discover whether the organism alone was capable of originating the disease, it was determined to vaccinate a child with a fluid in which it was actively growing. Accordingly, some of the hydrocele-fluid preparation was used in three cases, but no result followed; and similar attempts to inoculate the teats of a calf six months old were similarly unsuccessful. The conclusions drawn from these researches are—1st. That the granules constantly observed in active lymph are really organisms. 2nd. That they are capable of growth in fluids of very various characters. 3rd. That they probably require a heat nearly approaching that of the human body for their active development. 4th. That they produce in the fluids in which they grow very characteristic changes. 5th. That as they have been at present grown they are alone incapable of originating vaccinia. Mr. Godlee went on to show that the last conclusion was not incompatible with the view of the organism being special to the disease, comparing their changes to the examples of "reversion" in the animal and vegetable kingdoms, where, under varying conditions, the immediate descendants depart wholly from the parental type. So was it with the poison of variola, which, according to Ceely and others (although this is denied by Chauveau), produced vaccinia in the cow, and if the human subject be vaccinated from the pustule so produced he does not have variola, but vaccinia. Thus by making the poison pass through the system of the cow it has its characters permanently altered. Further, it was difficult to get a result from vaccination direct from the cow, as if the lymph required to be "humanised" in order to be capable of ready inoculation. Then, again, it was possible that the inflammatory changes set up in the skin, due probably to some irritating properties of vaccine lymph, favoured the development of the organism in the skin in vaccination, whereas the hydrocele fluid containing the organism was less irritating, and therefore did not produce those local changes in the tissues which, by weakening them, should diminish their power of resisting the growth of an organism. Mr. Godlee concluded by stating that he had also hoped to have communicated some positive results with regard to variola, but his observations on this subject were yet too few and inconclusive.—The PRESIDENT, in thanking Mr. Godlee for his communication, said that he had clearly shown that the organisms met with in vaccine

lymph could be propagated in different fluids. Were such organisms characteristic of vaccinia? He agreed with Mr. Godlee that much caution was necessary in drawing conclusions from these experiments, but he could not admit the validity of the analogy which had been drawn between the variations in animals and plants produced by varying conditions and the differences of behaviour of vaccine virus under different circumstances. Many recent writers, both on the continent and in America, held that variola and vaccinia were not the same disease, but that the latter was an andidote to the former, rather than the same poison.—Mr. JAMES HOGG demurred to the title of the paper, "organisms in variola and vaccinia," as going beyond the facts. He saw no difference between the organisms described and those occurring under other putrefactive conditions.—Dr. SQUIRE thought the analogy between infection and the growth of plants was misleading. In granular ophthalmia, there is the development by contact of the infectious material, and it was equally true that the particulate material in vaccine lymph conveyed the action without inferring the growth and development of a germ or a separate organism.—Dr. THIN suggested that bacteria should be sought for in other vesicular affections of the skin, as it was quite possible the bacteria found by Mr. Godlee in lymph from vaccine vesicles might have entered from without, traversing the epidermal cells just as the fungus of ringworm does. If in other pustules and vesicles no bacteria were found, that fact would go a long way to prove their specific characters.—Mr. GODLEE, in reply, stated that the analogies drawn were merely intended to show how the offspring may differ from the parent. The specificity of the organisms could not be established from their appearance, but their constancy and their close resemblance to those seen in stale lymph rendered their source almost certain; they differed completely from the bacteria of ordinary putrefaction.

Sir WILLIAM GULL then read the paper prepared by himself and Dr. SUTTON, upon "Changes in the Spinal Cord and its Vessels in Arterio-capillary Fibrosis." He commenced by referring to the general conclusions arrived at by them in the paper communicated to the Royal Medical and Chirurgical Society in May, 1872—namely, that the morbid state commonly known as chronic Bright's disease, with contracted kidney, was not limited to the well-recognised cases in which the kidneys are contracted, the heart hypertrophied, and the vessels diseased, but that it underlay also cases in which the kidneys are but slightly affected, or not at all, the cardiac hypertrophy and vascular lesion remaining. They believed therefore that chronic Bright's disease with contracted kidney was not essentially renal, and that for its full comprehension a wider investigation of concomitant or even antecedent changes in other organs was called for; changes of fibroid nature in the walls of the arteries and capillaries, and the interstitial framework of organs. They believed that further inquiry would show that after middle life there is very commonly a pathological condition of the body, leading to fibroid changes, not only in the kidneys, but in other organs also; the renal affection thus being only a local expression of a general disease or degeneration. Thus many supposed unimportant ailments might be due to commencing tissue changes in the several organs in advance of the renal changes. Their investigations had led them to think that although in some cases these tissue changes might result from renal disease, in others they might follow the renal changes in respect of tissue, but, like them, be dependent upon a general cachexia. Believing that instances of cardiac hypertrophy occurring without renal lesion, but with indurative changes in other organs, have been regarded too much as isolated facts, they thought a common state was present in all those cases having arterio-capillary fibrosis as its basis. Sir William then referred to Dr. Johnson's criticism that the "hyaline-fibroid" change was an artificial result, and stated that their further investigation had only strengthened their views as to the changes being morbid. Hypertrophy of the muscular walls of the arterioles was difficult to establish, for it was simulated by vessels in a state of contraction, and it was also not possible to give a fixed standard of the thickness of the normal muscular coat; moreover, their specimens showed vessels which presented various degrees of thickening of the middle coat in various parts of the same vessel; and often, indeed, manifested diminution in the size of the muscular layer—an atrophy associated with great increase of the hyaline-fibroid change of the adventitia. Regarding the present communication as the first of a series of investigations growing out of the former inquiry, Sir William stated that they proposed to show at a subsequent date that like changes occur in the stomach, spleen, heart, lungs, brain, skin, &c. Before detailing the morbid changes in the spinal cord in cases of arterio-capillary fibrosis, the paper recalled some particulars of the normal histology (which Sir William did not read). He passed on therefore to describe in detail the changes they had found in the spinal cord, beginning with the slighter and more recent changes. These, which are due to œdema, present numerous homogeneous masses commonly known as "colloid bodies," interspersed amongst the nerve elements and connective tissue, in places obscuring the nerve-tubules, but not changing their structure, and collected around the capillary vessels. Besides these defined masses there is also some similar material pervading the medullary sheaths, and even extending into the axis cylinders, and also a fine collection of hæmatine granules. There is some thickening of the connective tissue, and swollen nuclei. Another specimen showed similar changes referable to simple exudation, but in addition the vessels were thickened by fibroid material, whilst the thickening of the connective tissue encroached upon and caused wasting of nerve-tubules, especially in the anterior columns. In addition to fibroid thickening there was granular matter exuded along the fibrils. The same specimen (from a patient forty-two years of age, in whom the kidneys were granular and contracted, left ventricle of heart hypertrophied, and some old hæmorrhagic changes in the brain) showed apparently distension of the nerve-tubules by exudation within their sheaths. In places, especially in the dorsal region, there was thickening of the adventitia of the arterioles, whilst the muscle cells in many parts were shrunken, and in others appeared larger than normal. Another specimen was referred to shewing essentially the same changes—viz., chronic thickening of the arterioles and connective tissue, and recent exudation into the connective tissue plexus, this exudation material being of an albuminoid nature. The "colloid bodies" are probably of the same origin. They had found this hazy, homogeneous material more or less hyaline, but in much smaller quantity, in parts of a healthy cord. If it were simple serous exudation it might be expected to be found in a minor degree even in healthy cords, as in other organs, especially when death occurs rapidly by injury from the abrupt and undue distension of the vessels on the sudden arrest of the pulmonary circulation. But neither in healthy cords nor even in all cords from cases of Bright's disease had they observed such large and well-defined collections of granular and homogeneous material as above described. "Colloid" masses, similar to these noticed, were met with largely distributed in the nerve-centres in cases of injury and acute inflammation. These facts pointed to the view taken of the bodies in question being of albuminoid nature, and indicative of an œdematous condition of the cord. Passing to the more marked and more advanced changes, Sir William described the characters of the cord from the case of a man forty-seven years of age who presented granular contracted kidney, with indication of recent acute nephritis, emphysema, dilated and hypertrophied left ventricle, great contraction and granular condition of mucous membrane of stomach, atrophied brain, pericarditis, and pneumonia. Here there was much thickening and muscular proliferation of the connective-tissue septula, and swelling of the capillaries and arterioles by hyaline homogeneous material which spread away from the vessels amongst the nerve-structures. This substance extended into some of the medullary sheaths, the axis cylinders being to a great extent unaffected by it. In addition to these recent changes there were indications of chronic thickening of the adventitia of the arterioles, in some of which the muscle-cells were inappreciable. Another case was that of a man sixty-nine years of age, with fracture of femur, granular contracted kidney, hypertrophied heart, emphysema, atrophied spleen with thickened connective tissue, atrophied brain, no œdema, and no trace of acute nephritis. Here there was similar evidence of myelitis and indications of chronic changes in the increased fibrous tissue, and exudation of homogeneous finely granular material. The changes in the walls of the arterioles were well marked, all being more or less thickened

in their outer walls by hyaline-fibroid changes. The surface of the cord was further much puckered in several places, the depressions corresponding to the presence of thickened connective tissue extending into the substance of the columns. More advanced changes still were found in the spinal cord of a man forty years of age, where the autopsy showed dilated hypertrophied left ventricle, atrophied brain, and syphilitic changes in the liver. In the dorsal region, and especially in the posterior columns, the connective septa and their processes were replaced by a dense homogeneous substance, staining deeply, and studded with large nuclei, surrounding, and in parts replacing, nerve-tubules. The arterioles and capillaries were much thickened by homogeneous and faintly fibroid material. In another case, in which there were old hæmorrhagic changes in the corpus striatum, recent clot in one hemisphere, dilated hypertrophid left ventricle, and granular kidneys, there were tracts of fibroid thickening, causing destruction of many of the nerve-tubules, and corresponding to the "descending sclerosis" of French pathologists. A detailed description was further given of five other cases, in which the fibroid changes were even more marked than in those above-mentioned, in the form of more or less extensive tracts of fibroid material, causing atrophy of the nerve-tubules. In one case, that of a man fifty-two years of age, the kidneys were normal, and, beyond dilatation of its right side, no noticeable change was met with in the heart; but, in addition to the induration of the spinal cord, there was fibroid consolidation of the upper lobes of the lungs, and the testes were fibrous. Sir William Gull then pointed out the identity between these changes and those described under the head of "sclerosis" by Charcot, Leyden, and others, and by Rindfleisch as "inflammatory induration." After recapitulating the main features in each of the cases described, he stated that the question of the origin of the simple exudation was reserved for further examination, and proceeded to draw the following analogies between the fibroid changes observed in the spinal cord and those of granular contracted kidney. "In the spinal cord, as in the kidney, the fibroid change, as might be expected, is most marked where the connective tissue is most abundant. Extending in the cord, as in the kidney, from the surface-membrane inwards; or extending in the cord from the grey matter outwards, in the kidney from the base of the cones outwards; extending in cord and in kidney from the adventitia of the arterioles and capillaries into surrounding connective tissue. The fibroid material in the cord, as in the kidney, contracts and compresses surrounding tubules, atrophying or destroying them, but leaves many other adjacent tubules comparatively normal. In the cord, as in the kidney, it would seem that acute change commonly supervenes on the chronic. Seeing that so many tubules remain comparatively normal, we are enabled to understand how it is that both cord and kidney may retain much of their functional activity, even when they are the seat of very extensive fibroid change; and this usually continues (persons walk or secrete urine fairly well) until the nerve-tubules are deteriorated by acute changes. It only remains to state that in the five cases in which there were well-marked fibroid changes (sclerosis) in the cord the kidneys were very granular and contracted, and the left ventricle of the heart hypertrophied; no valvular disease in two. The kidneys were slightly granular and the left ventricle of the heart not hypertrophied in one. The kidneys were not contracted nor granular in two; but in one of these the lungs were the seat of extensive fibroid induration, and the testicle also, and in the liver there was a little similar change; in the other, the left ventricle of the heart, without valvular disease, was greatly hypertrophied. These particulars show that fibrosis in the cord may occur coincidently with fibrosis of the kidney; or it may be in advance of the fibroid change in the kidney, or occur as part of a general fibrosis altogether independently of renal disease." — The PRESIDENT said that the members must have listened with great interest to the paper, and he congratulated the Society that one so greatly occupied as Sir William Gull should be able and willing to devote so much time to the elucidation of these diseased states. An opportunity for discussing the views just laid down would be given at the next meeting, when Dr. G. Johnson would bring forward the subject of vascular changes in chronic Bright's disease. He himself thought there were two subjects worthy of discussion: first, what was the precise nature of this morbid change? and, secondly, what light has been thrown upon the antecedent conditions upon which this change depends? With regard to the change and its cause, most, he thought, were inclined to believe, with Dr. Johnson, that it was due to the circulation of effete matter in the blood. The argument raised against this by Sir William Gull, from the fact that cases occur in which the cardiac and vascular changes predominate over the renal, or where the kidneys even are healthy, did not tell against the view that the changes in question do result from a morbid state of the blood. It was possible that the blood and fluids may become so contaminated by disintegration of material that even healthy kidneys cannot eliminate the effete products.

Dr. DICKINSON moving the adjournment of the discussion until Dr. Johnson's paper had been read, the Society adjourned.

HYGIENE AT ST. MARY'S HOSPITAL.

No. I.

THE governors of St. Mary's have done good service in the cause of scientific hygiene by printing and circulating three reports having reference to certain alterations lately carried out in the hospital. In these reports the reasons for the alterations, the nature of the alterations, and the results of the alterations, are all set forth, and those who give to them a few hours' careful study will receive a lesson in practical hygiene the value of which it would be difficult to overestimate. These reports are all from the pen of Professor De Chaumont, of Netley, who throughout has been the scientific adviser of the committee.

On July 2nd, 3rd, and 4th, 1875, a series of experiments was carried out by Dr. De Chaumont for the purpose of accurately determining the condition of the hospital as regards its ventilation and other matters. These experiments embraced a chemical and microscopical examination of the air, both without and within the hospital, and a determination of the velocity of air-currents through the various ventilating apertures.

On July 2nd, 1875, the condition of the air outside the hospital was most exceptionally bad. There was hardly any wind; temperature 58·5°; humidity 97 per cent. The mean of thirty-one observations gave the amount of carbonic acid at ·560 in every 1000 volumes, which is more than ·1 above the average for the London streets. The amount of oxygen required to oxidise the oxidisable matter in a cubic metre of air was 1·43 milligrammes. The free ammonia amounted to ·3574, and the potential ammonia to ·5280, milligrammes per cubic metre. These figures are all extremely high, the potential ammonia equalling that found by Angus Smith over the air of a midden. This bad condition of the external atmosphere was due partly to the accidental circumstances of the stillness of the air and its high degree of humidity, but largely, no doubt, to permanent and, in some degree, to removable causes, such as "the immediate proximity of other buildings, the steam from the laundry, the position of the dust-bin, and the presence of impurities from the wards themselves, which are but slowly diffused and got rid of." The solid matters detected in the outside air were very suggestive. Thus there were large quantities of the epidermis of hay, the source of which, almost certainly, was the horse-dung of the streets. Epidermic scales and epithelium from the mouth, coming probably from the wards themselves, were also found, as well as linen, cotton, down, &c.

Next as to the wards. A sick ward may be considered in a satisfactory state as regards its ventilation, &c., if it can be shown that each patient has 1200 cubic feet of space (the maximum effective height of ward being reckoned at 12 ft.); that the entire air of the ward is changed forty-eight times in the twenty-four; that the temperature is not more than 65°, or less than 58° as a minimum in surgical wards, and that the carbonic acid does not exceed ·6 per 1000 volumes, of which ·2 may be due to respiratory impurity.

As regards cubic space and area the patients of St.

Mary's are well off, the average of the former (reckoning height only up to 12 ft.) being 1465 cubic feet, and the latter 122 square feet. On July 2nd and 4th, 1875, the average temperature was 68°; the humidity 78 per cent.; the carbonic acid per 1000 volumes ·847 (of which ·287 was due to respiratory impurity); the air was changed twenty-two times in each twenty-four hours; the amount of air supplied and utilised per head was 2080 cubic feet; the oxygen required for oxidisable matter was 1·44 mg. per cubic metre; the free ammonia, ·5556; and the potential ammonia, ·5465.

On this occasion the difference of temperature between the air of the wards and the external air was 9·5°, a condition of things very favourable for ventilation. The condition of the wards varied very much. Thus, in Victoria ward, containing fifteen beds, it was found that each patient had 1390 effective cubic feet of space, that the respiratory impurity was ·46, the amount of air supplied and utilised per head per hour was only 1310 cubic feet, and the air was changed only 15·5 times per twenty-four hours. The oxidisable matter and the ammonia were not determined.

In Cambridge ward (on the same floor) each patient had 1650 effective cubic feet of space, 3170 cubic feet of air was utilised by each patient per hour, and the air was changed 34·5 times in the twenty-four hours. The respiratory impurity was only ·189 in 1000 volumes. The oxygen required was 1·49, the free ammonia ·6680, and the potential ammonia ·4710.

The condition of the accident ward requires special notice. It is a wide ward, fifty-two feet, and was divided down the middle by a screen four feet high. It contained eighteen beds, five on each side, under the windows, and four on either side of the central division screen. There are windows on either side. Dr. De Chaumont says: "I was informed that the health of the patients in the beds by the screen was less good than those at the window sides, and that erysipelas frequently made its appearance among them."

The air was therefore examined on either side of the ward (windward and leeward) and on either side of the screen, and its purity was found to vary in a most remarkable manner. Thus under the windows on the windward side the respiratory impurity was only ·166; each patient received and utilised 3620 cubic feet of air per hour, and the air was changed forty-one times in the twenty-four hours. On the leeward side of the screen the respiratory impurity was ·386; the air supplied was only 1560 cubic feet per hour, and the change in the twenty-four hours was only eighteen times. It is estimated that in the day-time between 4000 and 5000 cubic feet of air per head per hour passed through this ward; but, calculating from the respiratory impurity, it was shown that about half this was wasted, and, owing to the shape of the ward and the position of its inlets and outlets, escaped without serving in any way to dilute the impurity of the air, towards which end only 2330 feet were effective (taking the average for the whole ward).

The air of this ward yielded the most copious supply of suspended material. There were found "linen, cotton, and woollen fibres, pinewood, also some pine pollen, hay epidermis with fungus attached, exuviæ of insects, charred vegetable matter, dried-up palmellaceous frond, a ciliated spore, probably of vouncheria, spores of fungus, skin epithelium, cells of nucleated epithelium from the mouth in large quantity, and a few pus-cells." The chemical examination for organic matter confirmed the evidence of the microscope. The oxygen required for oxidisable matter was 1·36 milligr. per cubic metre, the free ammonia ·3519, and the albuminoid ammonia ·6915. "This," says the Report, "is an enormous quantity, much the largest met with in the whole inquiry, being more than 30 per cent. above the very high outer-air ratio."

The above were the main facts elicited by the inquiry, and in place of vague notions of unhealthiness, the committee had the satisfaction of being in possession of exact figures.

Dr. De Chaumont gave an opinion to the effect that the best thing would be to abandon the present hospital and build another, but such a course not being practicable, he advised that certain alterations should be made. These were—

1. The removal of sinks and waterclosets from the immediate proximity of the wards, into which, for the most part, they ventilated freely, and were the main cause of the large amount of ammonia in the air.

2. The building up, as far as possible, of the direct communication between the wards.

3. The removal of the laundry from the ground-floor of the hospital, and the daily emptying of the dust-bin.

4. The provision of better ventilation by making fresh windows, and providing at least twenty-five square inches of ventilating aperture per patient by means of Tobin's tubes and Sheringham valves, in addition to the windows, as well as outlets over gas-burners, &c.

5. The oiling or varnishing of the floors, and the removal of all impediments to the free circulation of air, and of inequalities likely to harbour dust.

6. The provision of additional fireplaces.

7. The removal of the screen in the accident ward, and the provision of tube-ventilators in the centre of this ward, so that each patient might be provided with air that had not passed over other beds in reaching his.

These alterations were, to a great extent, carried out under the guidance of Mr. Stephen Salter, the architect. The laundry, however, was not removed, and the isolation of the separate wards was not quite so complete as it was advised it should be. The alterations were of a most extensive kind, involving the expenditure of about £12,000, and we are glad to hear that the result is considered by the professional staff to be satisfactory. The building has been greatly improved in appearance, and there has been a most marked diminution of hospital disease.

A series of exact experiments was carried out on the 15th, 16th, and 17th of August, 1876, in order to determine whether the improvement in the hospital air was such as admitted of demonstration by chemical and physical means. The time chosen for the experiments was rather unfortunate, for it was in the very height of the terribly hot weather which will cause the month of August, 1876, to be long remembered. On one occasion the ward-temperature was over 80°, and four degrees lower than the external air. As far as the improvement to the senses is concerned, there is no doubt. The wards are improved in appearance by the removal of the waterclosets and sinks, and the nose no longer detects the close smell which was remarkable before.

The figures which are obtained from the experiments are perhaps a little disappointing, but much allowance is, of course, to be made for the very unfavourable circumstance of temperature.

On two out of the three days on which experiments were made the windows were all opened, but on the 16th of August they were purposely closed in order to test the ventilating power of the Tobin's tubes and the Sheringham valves which had been introduced. The following is the mean result of all the wards examined:—On August 15th: Respiratory impurity ·154; air supplied per head 3810; air changed forty times in twenty-four hours. On August 16th: Respiratory impurity ·433; air supplied per head 1390; air changed fourteen and a half times in twenty-four hours. On August 17th: Respiratory impurity ·399; air supplied per head 1510; air changed seventeen times in twenty-four hours. General mean of the three nights: Respiratory impurity ·346; air supplied per head 1740; air changed nineteen times in the twenty-four hours.

On the 15th, when the results were exceedingly good, the wind, though slight, was in the east, and blew directly against the many-windowed front of the hospital. On the 16th and 17th the wind had gone to the south-east, and struck the hospital on its narrow end.

Looking to the organic matter, the result is no longer doubtful. In 1875 the oxygen required for all oxidisable matter was 1·45 mg. per cubic metre; being ·02 mg. above that required for the external air. The free ammonia was ·5556 (·1982 above the external air), and the albuminoid ammonia was ·5465 (·0185 above the external air). In 1876 the required oxygen was ·5174 (·054 *below* the external air); free ammonia ·0207 (·0044 above the external air), and albuminoid ammonia ·3993 (·1213 *below* the external air). This is a highly satisfactory result, and shows, we suppose, that much oxidisable matter is arrested in the tubes, and that the air of the ward is no longer fouled by waterclosets and sinks.

We propose at a future period to discuss certain of the details of the report, and especially the ventilating power of Tobin's tubes.

THE LANCET.

LONDON: SATURDAY, MARCH 10, 1877.

IT would appear from the reply of Mr. Secretary CROSS to Sir J. C. LAWRENCE that the convict TREADAWAY was not saved from capital punishment on the ground of "insanity." The Judge before whom the case was tried, indeed, expressed an opinion that the murderer, being an epileptic, might possess less power of resisting an impulse than a healthy criminal, and advised a reduction of the penalty; but the medical examination to which the prisoner was subjected had for its object the satisfaction of the Home Secretary, and must be deemed private. In that case we may not lift the veil. There are considerations more important than the gratification of public curiosity, and it would be in the highest degree indecorous to seek to pry into the reasons which have influenced the Secretary of State in his final judgment. It should suffice to know that the Judge, who is the most responsible, and generally the best-informed, person in a case of this character, counselled mercy, and the Secretary of State has happily, and justly as we think, given effect to the recommendation.

We took occasion last week to point out the practical difference between epilepsy and epileptic insanity. The two manifestations are as distinct as inflammation of the scalp and of the cerebral membranes. There was nothing in the case of TREADAWAY to suggest the hypothesis of insanity, properly so called. Although no motive was assigned for the deed, it was obviously not a crime committed in a state of unconsciousness. The theory which most persons must have formed of the murder was briefly that, having bought a revolver probably to shoot himself, the convict, in a moment of rage, shot his victim. It was not worth while to hazard conjectures as to the precise nature of the provocation he received. The circumstances of the criminal might well have suggested an appeal for pecuniary help, which was rejected perhaps in a manner more than commonly irritating to the feelings of a desperate man. We failed to find a single feature in the legal aspect of the case which would remove it from the category of ordinary crimes. Thus far there could be no question of the course which justice must pursue; the finding of the jury was good in law and prudence; the remarks of the Judge in passing sentence were strictly appropriate. The endeavour to set up a plea of insanity, in so far as it was attempted, broke down, and, but for the wisdom of the Secretary of State and Mr. Justice LUSH, the issue would never have been placed in the light which, in fact, was the only true one.

The history of epilepsy—not epileptic insanity, of which there was no tittle of evidence—suggested a question neither raised in court nor submitted to the consideration of the Crown or public opinion by any expert who has intervened in the matter. It is not a little remarkable, and we think it should be expressly recognised, that justice has been done in this case by the initiation of the Secretary of State and the Judge, not by the intervention of alienists. In truth, the view propounded does not accord with the specialist doctrine as to responsibility. TREADAWAY has not been rescued from the scaffold by a plea of insanity urged in excuse of his offence. No proof of the existence of "epileptic vertigo" or "moral insanity" has prevailed to change the opinion of the Court or the Crown as to the prisoner's consciousness of the act at the time he committed it, or his responsibility afterwards. The question raised has been simply whether this man, who is undoubtedly epileptic, may not have murdered his victim under circumstances which strict justice must regard as "extenuating." Looking to the nervous—not mental—condition of the criminal and the circumstances under which the offence was committed, was not the case one in which, as as we pointed out last week, Justice must itself require the aid of Mercy?

It has been a judicial question throughout, and by calling to its aid the opinions of two official medical authorities—the one a general, the other a specialist physician,—the Home Office has taken a course eminently prudent and practical. The condition of the prisoner was examined, but without any notion of insanity, and he has been found so circumstanced that, looking to the facts of the case, the Judge recommended and the Secretary of State conceded a commutation of the sentence from death to penal servitude. Whether it may hereafter happen that the epileptic becomes insane, time must show, but there seems to be no present doubt as to his sanity, and it is impossible to believe he has been or is irresponsible. The case is simply one of murder "with extenuating circumstances," which in this instance are found in the condition of the criminal. The plea, or excuse, of insanity, has not been concerned.

THE recent discussion at the Pathological Society on Syphilitic Disease of the Lung can scarcely be said to have settled the doubts which have been entertained as to the nature and even the existence of such an affection. In spite of the number of specimens which were exhibited of what was believed to be lung disease of syphilitic origin, there were but few which presented any markedly syphilitic characters, and these had but little in common beyond the fact that they were taken from subjects who, for other reasons, were strongly believed or known to be the subjects of syphilis. But since there was no agreement as to the features by which the changes in the lung were distinguishable from other chronic forms of pneumonia found in non-syphilitic subjects, it may at least be questioned whether in these particular cases the changes might not have occurred independently of the syphilitic virus. With the exception of one or two specimens of large gummata in the lung, which we are not at present considering, as they form a separate class of very rare and at the same time well-recognised cases, the specimens shown were of the least definite form—viz., limited fibroid changes such as, it is believed, may be due to syphilis. The condition of our knowledge was well shown by the criticism made by Dr. WILSON FOX—viz., that no less than seven different varieties of lung disease were spoken of as syphilitic, some of the changes described under the same name being of incompatible nature. Perhaps a part of this discord would have proved to be more

apparent than real had the discussion been prolonged; some of the points of divergence might have been found to be due to different ways of describing the same thing.

It would be wrong to conclude that because there is so little agreement amongst pathologists that there is no syphilitic affection of the lung other than the presence of large gummata. The analogy of morbid changes in other organs would lead us to believe, even apart from clinical evidence, that there must be other forms of affection which are less easy of recognition. Nor when we consider how recently these changes in other organs have come to be accepted as syphilitic can we wonder at the present state of opinion on this question. There are, too, peculiar difficulties in the investigation of the subject, due in part to the absence of definite criteria for the distinction of syphilitic disease by the microscope, and in part to the structure of the organ in question. The structure of the lung renders it peculiarly unsuitable for the recognition of morbid processes analogous to those found in other organs. The controversy which has raged, and, in spite of the elaborate discussion three years ago on the subject, still rages, as to the relations of tubercle to pulmonary phthisis, is but another illustration of a similar difficulty, and the same questions will be sure to arise in reference to syphilitic phthisis. The naked-eye characters of new growths are modified by the reticulated structure of the organ; and the catarrhal processes which so readily take place, not only have the same effect, but tend also to set up other secondary changes due to degeneration of accumulated catarrhal products. Hence new elements are introduced which must be eliminated before the problem can be thoroughly solved.

It will be advantageous to inquire what are the forms of syphilitic lung disease as to which there is little or no doubt, as they afford the best basis for an examination of the more doubtful forms. There are, firstly, certain well-authenticated cases in which a gummatous infiltration or growth in the thoracic wall, commencing in muscle or periosteum, has invaded, first the pleura and then the lung, penetrating to a certain depth into its substance. Secondly, there are cases, such as that exhibited by Dr. PYE-SMITH, in which there is syphilitic disease of the larynx and trachea, extending downwards along the bronchi and their divisions, and then entering the lung, producing probably more or less affection of the alveolar structure. It is true that in this class of cases there is the additional element of the secondary results, due to narrowing of the bronchi, imperfect expansion of the lung, and the retention of bronchial secretion. Thirdly, there are well-authenticated cases of gummata of large size in the lung, presenting characters similar to those in other organs, two excellent specimens of which were exhibited by Dr. AITKEN from the Netley Museum. Fourthly, there is the disease of the lung peculiar to infancy, described by VIRCHOW and F. WEBER nearly thirty years ago and named by them "white hepatisation," which has since been shown to be of syphilitic origin, and variously termed "epithelioma of the lung," "epithelial induration," and "syphilitic pneumonia," by later writers. This change, which is found in newly-born children, or during the first few months of extra-uterine life, was well illustrated by a case of Dr. GREENFIELD'S, to which Dr. WILSON FOX drew attention. The change consists in a diffuse syphilitic growth of highly vascular character, commencing in the peribronchial or perivascular fibrous tissue, and thence invading the alveolar septa, gradually obliterating the alveoli. It was pointed out that there is in these cases a very remarkable persistence of overgrown epithelium in the alveoli.

We have, then, sufficient evidence to warrant a belief in the existence of syphilitic disease of the lung, and there remain the questions of what other forms it may assume in the adult, and what are its relations to pulmonary phthisis. Dr. MOXON suggested, nearly ten years ago, that a form analogous to the white hepatisation of the newly-born might exist in the adult. Bearing in mind, however, the structural differences between the fœtal or infantile lung and the fully-developed adult lung, we might anticipate that a great difference would be observed in the process in the two cases. In the infant lung, the highly cellular character and the ready reversion to the embryonic type of structure would naturally lead to an exuberance of growth and rapid diffusion of the morbid process, which could not occur in the more fibrous and less cellular lung of the adult. Hence a slower growth, a more fibrous character, and a more limited extent of disease would be probably found in the adult. Such, indeed, seems to be the case, and the majority of the specimens exhibited appeared to come under this class. They differed greatly in the extent of lung involved. In some the disease was limited to fibrous bands, in some cases containing small gummata, these bands being sometimes associated with thickening of the pleura, in others the pleura being healthy or only puckered. According to one view, these bands originated in a cell-growth commencing around the arteries, and thence invading the alveolar septa; others believed that they might originate around either arteries or bronchi. According to Dr. GOWERS, the microscopical characters of the growth differed little, if at all, from those seen in ordinary tubercular phthisis. Dr. GREEN especially insisted on the fact of the growth commencing in the interlobular septa, especially around the arteries, and thence invading the lung, instead of beginning in the alveolar walls. Dr. GREENFIELD dwelt upon the localisation of the change and the high degree of vascularity shown by it, points in which he was supported by Dr. GOODHART and Dr. GREEN. And, lastly, Dr. GOODHART endeavoured to show that there was nothing in the change essentially different from that found in the more chronic forms of phthisis and cirrhosis of the lung, and that we must seek in the distribution of the change, and in one or two minor differences of naked-eye character, its distinction from them. Indeed, if Dr. GOODHART'S observations be correct, there would seem to be but little reason to believe in syphilitic lung disease; they would tend to show that, as he said, "syphilis and fibrosis go together"—i.e., in syphilised subjects ordinary inflammations tend to lead to more pronounced fibrous changes.

In the presence of so great a variety of opinion on this subject it is scarcely worth while at present to entertain the question of the existence of syphilitic phthisis. That such a disease exists there is certain clinical evidence, as was strongly urged by Dr. DRYSDALE and Dr. PYE-SMITH, but whether it consists in a modification of the progress of

ordinary phthisis or in a special change in the lung-tissue originating in syphilitic infiltration, is clearly an open question. Nor can we expect any decisive result until there is a more general agreement as to what minute changes are to be regarded as due to syphilis, and by what criteria they may be distinguished with the naked eye or the microscope. Meanwhile, we can only urge that those who have the opportunity should devote special attention to the changes in the lungs in early syphilis, before the processes are so far advanced as to be complicated by fibroid and catarrhal changes.

THE Metropolitan Asylums Board has not disappointed our expectations. It has taken up the question of its own position with respect to hospital accommodation for infectious diseases in the metropolis, and entered upon a general consideration of the subject, which must bring this important matter to an issue. At a late meeting of the Board, the General Purposes Committee submitted, through Mr. GALSWORTHY, a report upon the whole question of the provision of hospital accommodation for infectious diseases in the metropolis. The report stated that out of thirty sanitary authorities within the metropolitan area, five only had made provision for the isolation of patients of the non-pauper class, while several had urged upon the Asylums Board the desirability that it should become the one sanitary hospital authority for the metropolis. The Committee had made inquiries as to the class of persons under treatment in the Asylums Board hospitals, and ascertained that less than 10 per cent. acknowledged to having been in previous receipt of Poor-law relief. The Committee, therefore, concluded that the Board had made more than adequate provision for the poor, thus confirming the opinion expressed by THE LANCET several weeks ago. Further, the Committee considered that adequate provision for the isolation and treatment of epidemic disease does not exist in the metropolis, and that such provision could be best made in a comprehensive and systematic manner by one central authority acting for the whole metropolis, not only for paupers, but for others desirous of hospital accommodation; that such authority should not be merely a department of Poor-law administration, but should have the powers of the Sanitary Acts conferred upon it; that either the Metropolitan Asylums Board should be merged into such central authority, or should be charged with the duty, and that its constitution should be altered and adapted to its enlarged duties and responsibilities. Mr. PELL, M.P., supported the motion for the adoption of this report.

We may conclude, then, that this important question is now fairly launched, and that it will presently find its way into the House of Commons. The subject it deals with, it must be remembered, is not merely of metropolitan interest. Although the gigantic scale in which it has to be dealt with here of necessity makes it for legislative purposes a thing apart, nevertheless it touches a question which is causing anxiety and trouble in almost every part of the kingdom. It is a source of infinite heartburnings between the sanitary and Poor-law authorities, each as a rule endeavouring to throw upon the other the responsibility of hospital accommodation, the patients and the community being too commonly suffered to fall to the ground between the contending parties. Where the Poor-law authority has hospital accommodation the sanitary authority will not move; where the sanitary authority has hospital accommodation the Poor-law authority will not move; where neither the one authority nor the other has accommodation, neither will move. Recent letters of the Local Government Board to the Metropolitan Asylums Board and sanitary authorities lead to the inference that its views tend somewhat in the direction indicated by the suggestions of the Asylums Board. The Local Government Board, without relieving the Poor-law authorities from their responsibilities as to the relief and medical treatment of the sick poor, seem to intimate that in case of infectious sickness hospital accommodation for isolation is the primary consideration, and that this is a function of the sanitary authority. Clearly, then, the onus of hospital provision should be thrown upon the sanitary authority, and the part of the Poor Law in such sickness made subsidiary to the larger questions of sanitary government. How this is to be effected is no doubt a complicated, but surely not an insoluble, question. As it is, the question of dealing with infectious diseases by isolation is almost swallowed up in the question of pauperism. We are strongly of opinion that this question, both as regards the metropolis and the country generally, should be considered by a Select Committee of the House of Commons. Such a Committee would bring together the evidence which exists on the subject since the passing of the Sanitary Act of 1866, and we are much mistaken if it would not find a solution of the difficulties which have hitherto beset it.

THE voluminous Parliamentary Paper headed Civil Service Estimates, that with commendable, and indeed inevitable, regularity appears with the opening session, has some sort of interest for our readers, because it indicates in a way the position held by the profession in that large body of the middle-class public yclept the Civil Service. Time was, and not so long ago, when Civil Service work claimed but very few votaries of our own cloth, because the number of the then existing appointments might be counted on the fingers of one hand. We allude here exclusively to appointments under the Imperial Government, as distinguished from those in the gift of local authorities. But one of the practical outcomes of sanitary science has been to produce a distinct class of workers, who, as medical officers of health and analysts, do not look beyond the emoluments derivable from official appointments. The number of this class is increasing rapidly, and it may be said, even now, that in quantity, if not in quality, the supply is more than fully equal to the demand. Many men regard salaried work with favour, because it gives them an independent position, and, as they believe, will enable them to pursue scientific studies without any anxious thought as to the present or prospective necessaries of life. The incessant worries, anxieties, and unrest of general practice, the risks of success in specialisms and consulting work, and the competition in all, make cowards of many men on the threshold of professional life—men who see, or think they see, a pleasant alternative in serving the Crown (or at all events some good local body) for a fixed and respectable stipend. They can, according to their own

thinking, "cut the coat according to the cloth," and be sure of a fair competence with comfort, in lieu of, at the best, large honoraria, with continuous labour. As this is professedly the "Money Article" of the week, we would ask those of our readers interested in the matter to look over the Civil Service Estimates, and see for themselves how many places at all worth having exist for our profession in these lists. The Local Government Board has a staff of ten medical officers, including the chief, whose salary is £1500, those of his juniors ranging from £1000 to £550 each. The Customs establishment has one and the Post-office two officers, and there is a medical officer attached to the Police Force, the Inland Revenue, and the Burial Acts office. The Board of Trade has for emigration purposes a staff of six or eight officers, one of whom is stationed in London, three at Liverpool, and the rest at various other outports. With the exception of the principal medical officer of the Post-office, the Customs' medical inspector, and the surgeon to the Police, none of those above-mentioned receive incomes exceeding £500 annually, and some much less. It will be seen that this epitome includes but twenty-four offices in all. Some amount of medical work, of course, is transacted in various departments, and paid for by fees, such as examinations of candidates for various posts, sanitary inspection of ships, and the like, and the Post-office, Police, and Vaccination departments have their divisional medical officers; but all these receive, comparatively speaking, small incomes, and are not debarred from general practice.

It is plain, therefore, that the plums of the Civil Service are very small, both in size and number. Sanitary science is, however, fast progressing, is rapidly assuming practical shapes, and leading to practical consequences. But the consequences are not yet developed, and thus it is a duty to record that the field of work for public medical officers is in the immediate future extensive enough, but by no means remunerative, except to the superlatively few.

Annotations.

"Ne quid nimis."

THE SANITARY STATE OF THE WAR OFFICE.

THE report of the Commission appointed to inquire into the sanitary state of the War Office—namely, the Physician-in-Ordinary to H.M. the Queen (Sir William Jenner, M.D.), the Director-General of the Army Medical Department (Sir W. M. Muir, M.D.), the Medical Officer of the Local Government Board (Dr. Edward C. Seaton), and Mr. A. B. Mitford—effectually disposes of the alarming rumours which have been recently circulated of the injurious effects produced upon the occupants of the War Office by its insanitary state. It would appear that during the period to which these rumours chiefly referred—to wit, the year 1876 and beginning of the present year, beyond which period the Commission have not thought it necessary to extend their investigation — there had been no epidemic of typhoid fever among the officers, clerks, and servants of the War Office, numbering altogether 633 persons; that there had been no sickness among the families which live in the building; that there were but nine persons absent from sickness on Jan. 19th, 1877; that only 174 of the staff, clerks, and messengers were absent from sickness (including common catarrhal affections) during the year 1876, and that the average duration of the absence was nineteen days; and that there is no evidence to show that the sickness in any instance was determined by the state of the War Office. It is unfortunate (although, perhaps, the omission may have been dictated by prudential motives) that the Commission did not seek for returns of sickness and kinds of sickness from other Government offices, in order to enable them to form a comparative judgment as to the sickness of the War Office staff. For example, it could not fail to have been useful for them to have had before them returns of absenteeism from ill-health of the occupants of the brand-new Government offices in Whitehall, the Foreign Office, the India Office, the Local Government Board, &c.

We do not wish to push this argument too far, for among the causes of sickness in the War Office there are certain anomalous and other affections enumerated, some thirty cases or thereabouts, in which a judicious chief would have directed a medical investigation as to the possible or probable relation to the ordinary local conditions under which the patient worked. But where Sir Wm. Jenner and his distinguished coadjutors failed to trace a distinct connexion, it is not likely that inquirers of less calibre would have succeeded. The state of the case as to the health of the staff of the War Office, as shown by the Commission's report, is as we have related.

But there is another aspect of the question. Although the Commission failed to discover any "special outbreak of disease" which they could ascribe to the condition of the War Office, they found a state of things there which has led them to express the opinion that it must tend to deteriorate the general health of the persons who have to work a few hours in the building. The War Office consists of a congeries of houses originally built for private dwellings, and now transformed into a great public office, including laundry, canteen, and printing establishment, irrespective of the primary intentions of the builders. Arrangements originally designed for the uses of a single family, its guests, and its servants, do not, at the best, readily admit of being changed so as to meet with equal facility the needs of a crowd of officials. It is not to be wondered at that in the attempted newer adaptation hygienic considerations have too frequently had to go to the wall. Add the natural faculty of blundering in such considerations that appears to attach to Her Majesty's Office of Works, which would have charge of making the adaptations, and it is not surprising that the Commission have reason to come to the conclusion that the sanitary condition of the present War Office is beyond tinkering, and that its retention is impossible. The defective ventilation of rooms and corridors, the generally bad arrangement of the drainage and water-supply, and the overcrowding, are, it would seem, hopeless.

THE COMMISSIONS ON SPONTANEOUS GENERATION.

THE questions in dispute connected with spontaneous generation, some of which we considered in a leader on February 17th, are to be submitted to commissions in this country and in Paris. Our remarks to the effect that, in spite of the assertions of germ theorists, the matter was not absolutely settled, are thus completely justified. We cannot quite see the judiciousness of the letter from M. Pasteur which we published last week; for in it he vehemently assumes the truth of his own cause and the falsity of that of his opponents, and at the same time announces that at his request a Commission has been appointed by the French Academy to investigate the matter, and to deter-

mine on which side truth lies. There must be reasonable ground for doubt if a body like the French Academy elects a number of its members for such a work as this, and until such doubt is removed it is useless to repudiate antagonistic views or to question men's scientific probity. M. Pasteur has challenged Dr. Charlton Bastian's views and defied him to obtain, in the presence of competent judges, bacteria in sterile urine on the addition of liquor potassæ in suitable quantities, provided that the liquor potassæ which he uses is prepared from pure potash with pure water, or, if made from impure materials, is submitted to a temperature of 230° Fahr. for twenty minutes. This challenge Dr. Bastian has accepted, and all who desire, in the interests of science, a solution of the important questions involved will watch with more than curiosity the work of the commissioners. In France three members of the Academy have been selected to judge the case. These gentlemen are all well known for the excellence of their labours, but unfortunately hold particular views on the subject they are asked to inquire into. The French Academy's commission consists of M. Milne Edwards, M. Dumas, and M. Boussingault, all more or less strong supporters of M. Pasteur's view. The objection to such a commission is obvious; anyone who has worked in science knows how difficult it is to arrive at the truth because of the pernicious influence which preconceived opinions exercise. We would respectfully suggest to the French Academy that there are amongst its members men equally trustworthy as the above-named, and who have given a fair share of time, trouble, and genius to the settlement of this dispute, and yet who do not accept the views of the germ theorists. Why not have placed either M. Frémy or M. Trécul on the commission of the French Academy? It would be well, in the interests of science rather than of individuals, if one, at least, of the commission were not a germ theorist. We do not know whether the Royal Society has taken any steps in this matter, but should it do so, as it probably will, no one can suppose for a moment that the greatest care will not be taken in the selection of commissioners. The whole question is now admitted to lie within very narrow bounds—in fact, almost within the results of a single experiment. Surely it is not impossible to obtain men unbiased one way or the other, and whose character is above all reproach, who are able to watch such an experiment, and weigh its results with accuracy. The presence of such men on commissions like these not only excludes partiality, but makes even the suspicion of partiality impossible.

THE PATHOLOGY OF HYDROPHOBIA.

THE opportunities of working out the pathology of hydrophobia in this country do not appear to have been often taken advantage of, but in the number of this journal of the 3rd February the microscopical appearances presented in two cases were given by Dr. Joseph Coats, of Glasgow. The coarse examination of the principal organs of the nervous system showed that the veins of the encephalon were distended with blood, that the surface of the arachnoid was smeared with blood-tinged fluid over the hemispheres, and that there were a few drachms of similar fluid in the ventricles. Microscopical examination of the cicatrix of the original wound showed that the skin and subcutaneous fat were infiltrated with round cells; the bloodvessels presented on their internal wall transparent globular bodies, looking like drops of an exuded fluid. In many parts of the cord and medulla oblongata accumulations of round cells were found in the perivascular spaces of the medium-sized vessels, and similar cells were also found around the ganglion cells. In all parts of the system there were numerous amyloid bodies, but only one hæmorrhage was discovered. Such were the characters found by Dr. Coats. We have received a note from Prof. Maurice Benedikt calling our attention to a memoir recently published in Virchow's *Archiv*, in which he claims to have given a prior and somewhat similar account of the pathological appearances of hydrophobia. Prof. Benedikt had the opportunity of studying the pathology of the disease in many cases of dogs, and in one case in man, and he attributes our imperfect information in respect to the morbid changes that occur in rabies to the circumstance that these changes are of a miliary character. He first notices that in sections of the brain clear or bright spots may be seen in which lie a few ganglion cells and certain nuclei, the origin of which is unknown. When examined with a high power the bright spaces seem to be filled with a finely granular material. He objects to apply the term "granular disintegration" to this condition, since it would only be giving an obscure appellation to a plain matter of fact. He regards the clear spots as being formed by the fine molecular basement tissue of the cerebral substance from which the morphological elements properly belonging to it have been, so to speak, macerated out. He has also noticed, and depicts in a plate appended to his paper, hyaloid masses in the substance of the walls of the vessels, which, as they enlarge, trench upon and constrict the lumen of the tube, and, at the same time, burst outwards through the adventitia. Careful examination enabled him to satisfy himself that these hyaloid masses originate from the corpuscles of the blood, and chiefly from the red corpuscles, which lose their pigment, enlarge, undergo alterations in form, and become confluent, after which they are transformed into diaphanous masses, that constitute the transparent globular bodies, looking like drops of an exuded fluid discovered by Dr. Coats.

ARMY MEDICAL OFFICERS.

MR. GATHORNE HARDY, in introducing the Army Estimates, devoted more than a usual amount of attention to the subject of the Army Medical Department. Assuming the War Minister to have been correctly reported, we think that he cannot be congratulated on his clearness. He has, in the first place, mixed up two divisions of his subject that are by no means connected, and, spite of his declaration that he has done his best to ascertain the grievances of the medical officers, and, if possible, relieve them, that he has failed to realise, or, at any rate, to give due prominence to the main causes of the existing discontent. The application of the short-service system to the medical department, and its effect on recruiting for that service, are perfectly distinct from the subject of unification. The regimental system was, no doubt, the most popular with medical officers, but we believe that its abolition, taken by itself, has had but little influence in the way of deterring men from entering the medical service. It is not easy to sum up in a few words the causes of the existing discontent, but the following may be safely assumed as among the more prominent of those that have been represented. A gradual steady growth of distrust of the Government from the time that the provisions of the Warrant of 1858 were curtailed in the matter of relative rank and its rights and privileges, which culminated when medical officers were deprived of forage allowances, and those holding regimental appointments, for which many of them had paid, were peremptorily removed from those appointments; in other words, retrospective legislation. To this may be added the frequent changes of regulations, the enforced half-pay at the end of six months' sick leave, the imposition of a larger amount, more irksome, and different kind of work on the senior that had hitherto devolved on the junior ranks, the dissatisfaction of many that the system of exchanges was no longe

freely allowed, and the worry caused by the uncertainty as to whether the regimental, departmental, or both systems, were to be adopted. Moreover, the unification scheme, after having been talked about for years, during which nothing, however, was really done towards fixing its working details, was at length introduced by Lord Cardwell, saddled with conditions that made it very unpalatable, to say the least. In justice to Mr. Hardy, it cannot be denied that in the way of promotion, he has done a great deal for the department; but, after all, is there not in Mr. Hardy's short-service scheme itself enough to account for the dearth of candidates? The result of our inquiries would lead us to believe that the majority of young medical men electing to enter the public service have no intention of relinquishing it after a few years to begin life afresh on their own account, and by such the long or continuous service system would of course be preferred. Even where the health remains unaffected by tropical service, army ways are not the ways of civil life, and military service is not the most favourable introduction to civil practice, and the chances of success in the latter are materially diminished if the first ten years of a professional man's life are not devoted to the work before him. From these considerations we were led from the first to declare that the terms offered by the Government must be liberal to make such a scheme successful, and this is just what they were not, at any rate as far as India was concerned. It would be very easy for Mr. Hardy to test the correctness or not of this view by putting the short and long service in competition with one another at the next examination, and we should then learn whether the changed system of organisation or the short service scheme were to blame. However, Dr. Lush has promised to take up the cause of the medical officers on another occasion.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Of all the duties demanded of the President of the Royal Medical and Chirurgical Society, that is the most arduous which he has to fulfil at the close of each year of office, in reading the death-roll of the Society during the preceding months. It is no light matter, indeed, to make oneself acquainted with the details of a busy life, to sketch in truthful characters a man in the apparel that he wore, and to estimate the value of his work and influence on his generation. For the past two years this duty has devolved upon one pre-eminently fitted not only to assign their true value to the lives of the departed and to pass just judgment, but able also to clothe his thoughts upon their life-work in diction which few can equal and none surpass. We recall that on the first occasion on which Sir James Paget performed this duty, how it was said that those were to be deemed happy who should fall in the year to come to have their lives chronicled by so masterly a hand. There were some present then who have left the ranks in the interval, and the remark, half-jestingly as it was uttered, has been amply fulfilled. The single-minded Stromeyer, founder of subcutaneous surgery; the veteran Ehrenberg, first to apply the powers of microscopy seriously to the task of investigating details of minute animal organisation; our own valued contributor, De Méric; the genial, warm-hearted Sibson, spending his life in amassing facts and making one large field of study and observation peculiarly his own; the keenly-intellectual Laycock, with mental powers far surpassing his feeble physique; the impetuous and ardent Robert Lee, keen in controversy and staunch in opposition to all novelties in his department of practice; the calm, resolute, and high-minded Fergusson; these and others who have passed from our midst were dwelt on with an affectionate regard, and the lessons of their lives impressed in a discourse which partook rather of the nature of an elegy than of a funeral oration. Many, doubtless, missed one prominent name from that roll, and it befits us not to refer to it here, except in words of regret and sorrow, for it was in connexion with a controversy in relation with this journal years ago that he withdrew his name from the Society of which he was even then a distinguished ornament. Time has happily caused oblivion to pass over the facts that led to his withdrawal, and none more than ourselves can view with regard the strict integrity of his well-spent life.

In the earlier part of the retiring President's address he contrasted the position and influence of the Society now with that of forty years ago, and noted how papers had become more elaborate and discussions less prolonged and animated than in the former days. He defended younger men from the reproach of being less "practical" than their fathers; and attributed the elaboration of the present to the care and discrimination exercised in the selection and publication of papers. Although occasional injustice might be done, it was more than counterbalanced by enforcing a high standard for the communications transmitted to the Society, and setting the seal of authority upon its Transactions. Further, Sir James Paget alluded to the several Societies that had sprung up around the older body, and compared the position of the latter to that of the Royal Society, which, in spite of the numerous smaller Societies devoted to separate branches of science that have arisen around it, still retains its prestige, is more sought for as to its Fellowship, and is the recipient of more communications than ever. The Royal Medical and Chirurgical may well emulate the great scientific Society, and, doing so, it will maintain its position in the future as it has done in the past.

OXFORD AND CAMBRIDGE BOAT RACE.

THIS year the Cambridge crew are the earliest to commence practice on the Thames, prior to the great struggle which takes place on the 24th instant. The Oxford eight will not arrive in town till next Monday, a week later than their rivals. Thus Cambridge will have nearly three weeks' practice on the London water, and Oxford barely a fortnight. Last year we commented on the manifest deterioration that took place in the Oxford crew after their appearance on the Thames. Coming up a rough though strong crew, they seemed to be discouraged and disheartened by the adverse criticism that was so freely bestowed on them. Men in training are easily affected by small trifles, and a discouraging remark which, under ordinary circumstances, they would probably ignore or speedily forget, causes anxiety and a mental fidgetiness which is most detrimental to training. Independently of newspaper criticism, however, we are convinced that the stay at Putney is not beneficial to the crews. Instead of that perfect quiet which ought to follow all severe exertion either of mind or body, the crews are exposed to continued excitement and annoyance from crowds of people who mob them whenever they make their appearance. Would a Newmarket trainer allow a Derby favourite, after his gallop, to be walked about the town on a fair day, or permit a crowd of people to collect round the stable door, keeping up a continual uproar throughout the day and late into the night? Yet this is what the University crews are exposed to at Putney. Lastly, the system of trials seems to us as altogether bad. An unsatisfactory trial disheartens the men and makes them over-anxious, whilst it gives a line to the bookmakers, whose presence on the banks is becoming every year more conspicuous and obnoxious. We believe the Universities would consult their own interests, and send up really better crews, if practice in the London water were alto-

gether done away with. The Cambridge men would have no difficulty in finding a water more lively than the Cam for their final practice either at Henley or on the tidal Ouse.

UNCERTIFIED DEATHS IN SOUTH LONDON.

THE incomplete certification of the causes of death in South London is again the subject of comment in the Registrar-General's last Weekly Return. It appears that in 2 per cent. of the deaths registered in London during the week ending the 3rd instant, the cause was not certified either by registered medical practitioner or by coroner, but was entered in the register from information supplied either by unqualified or at any rate unregistered practitioners, or by midwives, or by the ordinary informant of the death. As a registered medical practitioner is now bound to furnish a certificate of the cause of the death of every patient he has attended during his or her last illness, it may be assumed that in 30 of the 1529 deaths recorded last week no registered practitioner had been in attendance, and we know that no inquest was held in any of the cases. It is stated that the proportion of uncertified deaths in South London was equal to 4·5 per cent., whereas in the remainder of the metropolis it did not exceed 0·8 per cent. It has frequently been pointed out that the proportion of inquests held in South London is considerably lower than that which prevails in other parts of the metropolis, and there can be no doubt that the higher percentage of inquests held in north, west, central, and east London, not only discourages the practice of unqualified and unregistered practitioners, but also imposes a most important and salutary check upon the neglect of parents to provide medical attendance for their sick children. We are far from asserting that a formal inquest was necessary in each of the 30 uncertified deaths in London last week, but in the present incomplete state of the law there is no other machinery for obtaining satisfactory evidence of the cause of death in cases where no registered practitioner has been in attendance. We are informed that the local registrars referred 13 of the 22 uncertified deaths in South London to the coroners, who decided that it was unnecessary to hold inquests. Hence the deaths were registered without any trustworthy evidence of their cause, affording dangerous facilities for concealing cases of neglect and even of crime, which might otherwise have been detected. We have reason to believe that unqualified medical practice accounts for a considerable proportion of the uncertified deaths in Southwark, Greenwich, and Woolwich, and would suggest the attention of the Medical Defence Association to these localities.

THE PATHOLOGICAL SOCIETY.

THE revolution in the method of proceeding at the Pathological Society shadowed forth in the President's opening address has been rapidly established. The subject of visceral syphilis having occupied three meetings, the Society has opened up an old field of controversy in the elaborate paper read by Sir William Gull. The purport of that paper may be gleaned from the report we publish, but its precise scope and extent can only be judged when it shall appear in full in the Transactions of the Society. The abundant microscopical preparations and beautifully executed drawings exhibited bore witness to the large amount of labour that has been expended in the investigation. Basing their views upon the study of the changes shown in these specimens, Sir W. Gull and Dr. Sutton reverted to the doctrine laid down by them five years ago, that the renal changes in contracted granular kidney are but part and parcel of a general vascular deterioriation, showing itself in thickening of the outer coats of the smaller arteries and capillaries and in interstitial induration of some or all the organs of the body,—lesions known as "chronic interstitial inflammation," "fibroid substitution," "sclerosis," &c. They would thus link under one causality these changes which have a disposition in common. On Tuesday last they dealt only with these lesions as met with in the spinal cord, tracing their evolution from simple inflammatory exudation to well-formed sclerotic change. The discussion that will arise is likely to bear more particularly upon the relation between renal fibrosis and the fibroid changes in other organs, and we may conjecture that Dr. Johnson will still be prepared to maintain his interpretation of the "hyalin-fibroid" change, as opposed to hypertrophy of the muscular walls of the arterioles; and we hope that the wider issues raised by Sir W. Gull and Dr. Sutton will not be lost sight of.

The other communication on general pathology, that by Mr. Godlee on the organisms in vaccinia, did not give rise to discussion, or receive as much attention as it deserved at a meeting impatient to hear the exposition of arterio-capillary fibrosis. At the same time Mr. Godlee's experiments are of great interest, and, although the inquiry is yet incomplete, it is a step in the right direction towards determining the nature of contagia.

We cannot forbear one word as to the future work of the Society. In welcoming the changes proposed by Dr. Murchison we thought it hardly probable that the Society would so rapidly leave its customary field of work, and hinted at the desirability of its establishing an anatomical section at which, as before, isolated specimens could be exhibited. Some plan might yet be devised to prevent the absorption of whole evenings by one paper, however valuable.

THE HUNTERIAN MUSEUM.

A COMMITTEE appointed by the Board of the Trustees of the Hunterian Collection in the Royal College of Surgeons of England, after a conference with the Museum Committee of the College, have recommended that many of the "decayed and obscure specimens" should be replaced by new and more valuable ones. The committee found that the collection of "Vascular and Miscellaneous Preparations in a dried state," according to the catalogue published in 1831, contained 615 Hunterian preparations. Of these 115 appear to have perished, or are not at present capable of identification; 340 are, either from the nature of the subject illustrated, the mode of preparation, or their present condition, of little or no value; while 160 are sufficiently good to be retained in the collection. The 455 condemned preparations belong to the following series: Heart and Bloodvessels, 134; Absorbent System, 7; Organs of Respiration, 28; Organs of Digestion, 159; Generative and Urinary Organs, 114; Organs of Sense, 8; and Casts and Models, 5.

The Museum Committee propose, on behalf of the Council of the College, to replace them by transferring to the Hunterian collection 150 preparations, mounted in spirit, from the College collection, for the use of the public. Although the number of preparations substituted will be fewer than those removed, it is satisfactory to learn that they are more valuable, not only as regards their mode of preparation, but also as to their nature, many of them being taken from animals of great rarity and interest. These preparations, which will be known as the "Hunterian Substitute, 1877," and marked on the bottles containing them with the letters "H. S.," have been selected as representing, as nearly as may be, the same class of subjects illustrated by the Hunterian specimens, and possess the further advantage that, with care, they will in all probability be permanent, whereas dried preparations are always liable to

deterioration and decay, especially when not expressly prepared, in the first instance, to resist the attack of insects. It is to be regretted that, from this cause, the number of Hunter's dried preparations is likely to be greatly diminished.

PARLIAMENT AND THE PLAGUE.

THERE is something astounding in the indifference with which the great epidemic rolling over the metropolis is regarded by Parliament. A few cases of cattle plague have caused more anxiety in departments, and more concern in Parliament, than the Small-pox which goes steadily on, unchecked in its development, and affecting alike, though not quite equally, the rich and the poor. There is reason to believe that seven months ago a cordon might have been put about the few cases that there were in London, in a very circumscribed bit of London, and that by the very slightest restriction of the personal liberty of a few families, and the generous expenditure of a few hundred pounds in compensation to the families whose liberty would have been so restricted, and a few other steps as easy, the whole thing might have been stamped out. Now a quarter of a million may be the money lost by the epidemic, and thousands of deaths will be another consequence. Who is to blame? Parliament has passed laws to prevent such a calamity as that which now pervades London. Either they are not efficient, or they have not been applied. The calamity was peculiarly preventable, and it has not been prevented. There have been States which saw in the sickness of the people their great opprobrium. The British Parliament seems to have no such feeling, otherwise it would postpone most of the business before it to stop this misery and this mortality; to ask whether the laws which it has passed have been applied; if they have not, why? and if they have, where have they been at fault? Perhaps the misery and the mortality have gone too far now to be stopped. Anything done now will be very much like shutting the stable door after the horse has been stolen. But at any rate Parliament should demand to know who is to blame for the door not being shut sooner? And if it gauged the question rightly it would forego its Easter holidays to have it answered.

PROFESSOR LISTER.

To be pronounced the founder of a system of surgery is certainly apt to make a man feel proud, but to be told that his example has given "a mental impetus for good, the effects of which it is impossible to overrate," may be allowed to be sufficient to engender a spark of vanity in the humblest breast. At least Mr. Lister has shown that he is not proof against the seductions of this form of flattery. After receiving the complimentary memorial of his pupils last week, he seems to have lost himself in infatuation, and, without questioning the truth or value of the sentiments of his memorialists, so far forgot all the rules of decency and good taste as to contemptuously decline an offer that had never been made to him. But his elation would not suffer him to stop even there, for, like a man who in the excitement of enthusiasm raves at the false creations of his heat-oppressed brain, Mr. Lister fancied he saw in his professional *confrères* in London only unsubstantial shades and showy shams. After contrasting what he ungraciously designated the gropings of physicians with his own demonstrations "in the actual living flesh and blood" of his patients, he proceeded to stigmatise the teaching of clinical surgery in London, compared with the method which he employs, as "a mere sham." It is, however, curious to note that Mr. Lister applies the same epithet to the character of the teaching of clinical surgery in London that Dr. Hughes Bennett made use of some years ago in denouncing the system of Mr. Lister's "illustrious predecessor"—the system which Mr. Lister professes to have implicitly followed, and which he evidently believes to be entirely perfect. There are reasons, therefore, for hoping that matters are not quite so bad as Mr. Lister imagines, and that the system of teaching clinical surgery in London, although not in strict accordance with that which the Northern Professor affects, is, after all, not altogether worthless or misleading.

Seriously, it is to be regretted that Mr. Lister allowed himself to make such a foolish and offensive reply to the kind and generous memorial of his well-meaning pupils. In many quarters Mr. Lister has acquired the reputation of a thoughtful, painstaking surgeon, and has done some service to practical surgery by insisting on the importance of cleanliness in the treatment of wounds, although this has been done by the glorification of an idea which is neither original nor universally accepted; but even these circumstances do not warrant him in arrogating to himself the right to sit in judgment on his fellows, and publicly denounce as impostors those who have the misfortune to differ from him.

PRISON LABOUR AND FREE LABOUR.

THE employment of prisoners in industrial labour is merciful in the present and beneficial as regards the future. It is, however, necessary to protect the interests of free labour, and every semblance of competition in the market should be removed. The difficulty will be reduced when Her Majesty's prisons are all under the control of Her Majesty's Secretary of State. At present there is a conflict of opinion on the subject of prison labour, and those who seek to mend the evils of the existing practice find themselves confronted by many objectors instead of one. The question has been discussed, for years past, on a wide and vague basis; this in itself is a source of delay and needless difficulty. All authorities are agreed that hard work is good for prisoners, and economists will concede that prisons should be made, as far as possible, self-supporting. The problem may be solved on grounds of common prudence. Some occupation should be found for the inmates of gaols and convict establishments which will not compete with the industry of necessitous persons outside. The range of suitable occupations is not large, but we question whether due pains have been expended to discover the best. The reclamation of waste lands has been suggested, but that would entail outlay for new prisons. Would not the construction of wells and works for an efficient water-supply throughout the country afford employment for some years to come, during which the discovery of a permanent occupation might be attempted? The service we suggest relates to work out of the usual course of things, which needs to be done at the smallest cost. Its performance by prisoners would be no grievance to the industrial classes, and it would be a boon to the public.

SEWERAGE RESPONSIBILITIES OF LOCAL SANITARY AUTHORITIES.

ON the 2nd instant Vice-Chancellor Bacon decided a case which has an important bearing upon the responsibilities of local sanitary authorities. The plaintiff in the suit of Baker *v.* the Corporation of Wisbeach sought for an injunction against the defendants to secure the abatement of a nuisance in a ditch arising from sewage which flowed into it. It appears that the Corporation of Wisbeach, acting as the local board of health or urban sanitary authority, is now engaged in the construction of a new system of drainage for that town, but that in certain parts of the town the inhabit-

ants, through the non-completion of the drainage, have no way to get rid of their slops but by throwing them down gully-holes, which communicate with the ditch in question, thus rendering it offensive. Vice-Chancellor Bacon ruled that the defendants were actively guilty of occasioning the nuisance, inasmuch as they afforded the inhabitants, who had no other way of getting rid of the filth, the means of discharging it into the ditch. The injunction was granted as asked for, on the understanding that it should not be put into force for two months, by which time the corporation stated that the drainage system of the town would be completed. Legal as well as public opinion in sanitary matters is evidently ripening. It may even be hoped that before long local sanitary authorities will be made responsible, under a heavy penalty, for the habitation of any dwelling-house which is not provided with suitable means for filth disposal and with an ample and pure water supply.

POST-MORTEM EXAMINATIONS IN PAUPER CASES.

An important question has been raised among the guardians of St. George's Union by a letter from the Coroner of Westminster, Mr. Bedford, as to the propriety of post-mortem examinations being made by the medical officers in attendance on the patients whose cases are the subject of inquiry. The coroner understood that the Local Government Board had expressed the opinion that, as a rule, in cases of inquests in which a charge of neglect was likely to be made against the guardians or any of their officers, it was undesirable that the post-mortem should be made by the medical officer in attendance. The difficulty was, according to the coroner, that the Act 6 & 7 William IV. required that the practitioner in attendance during the last illness should make the post-mortem examination. He thus felt embarrassed, and his letter was referred to the Local Government Board. The guardians have done well so to refer the letter; but practically the question is not so embarrassing, for the Act really provides that where any person on oath before the coroner states that in his belief the death has been caused partly or entirely by the improper or negligent treatment of any medical practitioner or other person, such medical practitioner or other person may not be allowed to perform or assist at the post-mortem examination of the deceased. It is true that this requires an oath before the coroner to prevent the post-mortem examination being made; but the intention of the Act is apparent, and the coroner himself says, that under particular circumstances he has been in the habit of pointing out to the practitioner in attendance the desirableness of having the post-mortem examination made by another practitioner, and that the suggestion has always been adopted.

QUARANTINE IN THE COLONIES.

Most of our readers interested in emigration matters are probably aware that the colonial authorities are very properly alive to the danger that may be incurred by the importation of epidemic diseases. As a practical consequence, all immigrants are on arrival carefully examined, and if any contagious or infectious disease is found on board, the suspected as well as the infected are (we believe, in all Australian ports) subjected to a more or less rigorous quarantine. Recent advices from South Australia indicate, however, that at Adelaide the arrangements made for the sanitary service of the colony are of a by no means satisfactory character. The "lazarette" is a hulk some twenty-seven years old, and built in America. She has been, nautically speaking, a condemned craft for the last twelve years, was for some time moored on the mud in Hobson's Bay, near Melbourne, and although not worth buying for firewood, was considered good enough for a quarantine hulk. All sanitary experiences afloat go to prove that economies of this kind are in the long run very costly as well as very detrimental to the interests of immigrants, and *a fortiori* to the prosperity of the colony. The authorities in Australia and New Zealand might indeed advantageously take a leaf out of the book of the New York Emigration Commissioners, whose arrangements for the reception and treatment of immigrants, whether healthy, suspected, or infected, have never been surpassed, and probably never equalled.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LAST week a meeting of the Fellows was held to discuss the point whether it was expedient that the offices of President and Vice-President should be held for a longer period than one year. A resolution advocating this prolongation of the term of office was put before the meeting, but met with so much opposition that it had ultimately to be withdrawn. It appeared, however, that the outgoing President and Vice-President can be re-elected for another year at the termination of their year of office, should the electors wish it and should those officers put their names forward for an additional year. This being acknowledged, it naturally followed that there was no absolute necessity for making the change desired by those who signed the requisition which called the Fellows together. The election of President and Vice-President will take place early in June, when Mr. McDonnell (vice-president) will be elected President in Mr. Kidd's place, and Mr. Smyly Vice-President. This, of course, takes for granted that Mr. Kidd will not offer himself for a second year's tenure of office, otherwise numerous complications would probably arise.

MEDICAL WOMEN.

THE traditions of the University of London were too liberal to allow that body to be outdone by the King and Queen's College of Ireland in radicalism, and accordingly the Senate last week decided by a majority of 14 to 8 to admit women to medical degrees. Those women, therefore, who desire to undertake the duties and responsibilities of medical practitioners cannot now complain that they are excluded by all the examining bodies in this country. The degree of doctor, or doctoress, of medicine of the University of London is open to them, as well as the certificate of qualification in midwifery of the Royal College of Surgeons of England, as soon as an examining board can be formed. They possess a medical college, and are in a fair way of having one of the metropolitan hospitals thrown open to them for purposes of clinical study. The weekly board of the Royal Free Hospital have decided to admit female medical students to their wards for the purposes of clinical instruction, and have proposed, in opposition to the wishes of the majority of the medical and surgical staff, that lectures should be delivered on clinical medicine and surgery. If these concessions are also obtained every obstacle to the entrance of women into the medical profession will have been surmounted.

Although there may be many very cogent reasons against women becoming medical practitioners, it must be allowed that no better portal than that of the University of London could be desired, which for some women may, perhaps, have the further recommendation that no restrictions will be placed upon their sphere of labour, and that, unlike the certificates of the Royal College of Surgeons, the degree of the University of London will not require women to confine themselves to practice of obstetrics and the diseases of their own sex.

FASTING AND FAST-DAYS.

FAST DAY observance has been the subject of discussion in the Free Church Presbytery of Glasgow, and it has been sustained, notwithstanding a motion by Professor Candlish, in which he asked the Presbytery to express grave doubts whether the evils and abuses connected with fast-days notoriously prevalent in large commercial towns be not of such magnitude, and so irremediable in their character, that it would be better for the interests of religion that the communion season and services should be in some way dissociated from these holidays in large towns. Though Dr. Candlish's motion did not pass, and was, in fact, rejected by 35 against 12 votes, still it marks a significant change in religious opinion in Scotland as to the expediency of associating fasting and holiday making with solemn religious seasons. It would seem that in Scotland there is nothing like the decorum on these fast-days which there is in England on Good Friday, though some of the accessories of our more joyous religious days are discreditable enough. The question of fasting is one upon which good people may reasonably differ. For our own part we think there is too little of it amongst strong and comfortable people. They make themselves too comfortable. They eat and drink in excess of both want and work. And a fast is suggested both by religious and medical considerations. There are some evil spirits that only go out by fasting. But it is absurd to say that any good can come of a fast-day twice a year in a country where other holidays are scarce, and where drinking habits assert themselves so much. Religion is scandalised by such an association. The great fast wanted in Scotland is abstention from drinking. If the Church can bring about such a fast in Scotland, as it has creditably been trying to do of late, it will vindicate its own claim to respect. And one of the ways in which it can help to do this is by abolishing fast-days twice a year.

"HARDY'S FOLLY."

THE hope expressed last week that the War Office authorities did not intend to proceed with the reconstruction of the cavalry barracks at Knightsbridge was dispelled by Mr. Gathorne Hardy on Monday night, for, in introducing the Army Estimates, he stated he had determined to rebuild the barracks on the old site. Mr. Hardy promises that the new barracks will be everything that can be desired from an æsthetic point of view. That we do not doubt; but how about their sanitary condition and the future health of the inmates? This question Mr. Hardy has entirely ignored. The site was condemned years ago by a medical military commission as too narrow, and the buildings on it consequently too much crowded together, for the increased requirements of the present day. It is hardly creditable that, in spite of that report and also the fact that the already contracted site is still further to be diminished by the abstraction of fifteen feet from its width for the purpose of widening the Knightsbridge-road, the War Office authorities persist in the reconstruction of the barracks on this narrow site. We predict that these barracks at no distant date will be found insufficient for the number of troops required to be lodged there, and that a wiser administration will see fit to remove them to a more spacious site. If this should be the case, not even their "æsthetic" perfection would save them from the not undeserved appellation of "Hardy's folly." In the meantime we congratulate the Government on giving landlords and vestries throughout the country a practical example of the best mode of dealing with contracted and apparently useless sites—an example which we feel only too well assured that they will be eager to imitate.

AN EXAGGERATED STATEMENT.

DR. LYTTLETON FORBES WINSLOW is accused of having overstated the number of insane patients in the United States whose malady is alleged to have been caused by "spiritualism." He stated that there were 10,000 cases of lunacy ascribed to this source. The assertion was so manifestly preposterous, and evinced so little acquaintance with the subject, that we did not deem it worth while to contradict it. The trouble which has been taken to disprove the statement is surprising. Everybody who read the announcement when it was made must have felt that it would be held to be extravagant. It is perfectly well known that the insane population of the United States, all told, scarcely exceeds 45,000. To allege that one in four or five of the total number was a case of derangement due to spiritualism, was to tax credulity, and discredit an argument. Moreover, it must have occurred to most readers that Dr. Lyttleton Forbes Winslow could not possibly possess exclusive information on the subject upon which he was writing, and as the astounding "fact" had not leaked out through any other channel, it was natural to conclude that the author had been carried away by his reasoning. The laborious refutation of the statement which has been effected was unnecessary.

THE URINE IN MELANOSIS.

GANGHOFNER and PRIBRAM, having recently been enabled to study a case of general melanosis, have especially directed their attention to the condition of the urine known as melanuria, that prevails in this disease. Their conclusions are summarised in Hayem's *Revue des Sciences Médicales* for the current quarter. They found that the proportion of colouring matter was inversely as the quantity of urine eliminated in the twenty-four hours, and therefore directly as its density; but no relation could be made out with the temperature of the body, rapidity of respiration, or amount of alvine evacuation, &c. Analysis showed an increase, above the normal, in the quantity of indican contained in the urine; but the dark colour of the urine is due, not to this substance, but to melanin, which, unlike indican, is precipitated by acetate of lead. Melanin is a peculiar pathological product, analogous to the melanotic pigment of the tumours, and not due to deranged hepatic function. At least these writers say that, in observations of various instances of hepatic disease, other than melanosis—observations extending over a period of ten years—they have not met with this peculiar pigment in the urine. They signalise also the curious fact that the colouring matter may become diminished in quantity, and even disappear from the urine, during the progress of the melanosis.

MR. BISSHOPP AND THE TUNBRIDGE WELLS LOCAL BOARD.

WE were rather roundly abused by some of our contemporaries at Tunbridge Wells in September last for approving the decision of the magistrates in the above case, which went to exonerate Mr. Bisshopp, and show that he had acted with a good deal of humanity and consideration towards a poor man having scarlet fever, towards whom everybody else, including his own sister, seemed to act very differently. The local board were not satisfied with the ruling of the magistrates, and appealed. They will be still less satisfied with the decision of Mr. Justice Grove and Mr. Justice Denman, in the Common Pleas Division of the High Court of Justice, who have completely approved the decision of the magistrates, and allowed Mr. Bisshopp costs. They find that he was not "in charge" of the patient within the meaning of the Act; and, secondly, that he had not wilfully

exposed him. Tunbridge Wells, and all similar places, must resolve to make more ample and generous provision for the isolation and humane treatment of the poor affected with infectious disease, and not spend money in prosecuting the only people who make up for their lack of accommodation.

RUSSIAN MILITARY HOSPITALS.

THE *Invalide Russe* publishes the following information concerning the administration of military hospitals in Russia in 1875. It would appear that the number of these hospitals was 77, containing 25,469 beds. The patients admitted in the course of the year were 183,025, the mean stay of each patient in hospital being 30·2 days. Of the total number of cases treated, 83·85 per cent. recovered, 4·19 per cent. died, 1·61 per cent. were transferred to other establishments, 2·39 per cent. were discharged as incurable, and 7·96 per cent. remained under treatment at the end of the year. The cost of maintenance of the hospitals amounted to 4,393,130 roubles, the average daily expense of each patient being 74 copecs, or, less the cost of the administration and buildings, 48 copecs.

In addition to the hospitals there were in use 536 lazarets and infirmaries, containing 18,282 beds, and which furnished assistance to 202,582 patients. The mean stay of a patient in these establishments was 17·35 days, and the percentage of results as follows:—Recoveries 87·29, deaths 1·84, transference to other establishments 6·12, remaining under treatment at the end of the year 4·75. The mean cost of each patient in this class of hospitals was 20 copecs daily.

Further, 59,134 military patients were treated in the civil hospitals. Of these patients 85·86 per cent. recovered, 4·7 per cent. died, 0·91 per cent. were transferred to other hospitals, and 8·53 per cent. remained under treatment at the end of the year.

THE LIVERPOOL ROYAL INFIRMARY.

THE movement in favour of altering the mode of electing medical officers to the Liverpool Royal Infirmary has collapsed. It may be remembered that at the annual meeting of the trustees of the institution, held towards the end of January, a resolution was proposed and seconded that the power of election should be transferred from the trustees to the committee. An amendment, that the matter be referred back to the committee, was carried, and eventually the meeting was adjourned for a month to enable circulars to be sent to the trustees, asking their opinion on the proposed alteration. At the adjourned meeting recently held the original motion was withdrawn in deference to the opinion of the majority of the trustees, although not in a very gracious manner. The election of medical officers, therefore, remains in the hands of the general body of trustees, as heretofore. The proposed change was obnoxious to the entire medical board, and its abandonment is a gain to the Royal Infirmary, and a matter of congratulation to its professional staff.

FUCHSINE.

THE question of the adulteration of wine with fuchsine has been the subject of an animated discussion in the French Académie des Sciences, the outcome of which seems to be the general opinion that, although probably not deleterious in small quantity, it was unquestionably a foreign body, and wines which contain it could not be regarded as pure, and ought not to be sold as pure—an opinion in which we fully concur. The question has given rise to experiments on the action of fuchsine, some of which, by MM. Feltz and Ritter, were communicated to the Académie at a recent meeting. The injection of fuchsine, free from arsenic, into the blood of animals, produced transient nervous symptoms, somewhat like those of alcohol, and this even in minute quantities. The animal experimented on was unable to remain standing, and convulsive tremour of the limbs lasted for ten minutes. Intelligence did not appear to be interfered with. In order to ascertain whether these symptoms were due to disturbance of the blood tension, the experimenters injected into the veins distilled water and fresh urine in sufficient quantity to raise the mercurial column of the hæmodynamometer one or two centimetres above the normal, without producing any comparable nervous symptoms. In order to ascertain whether the phenomena depended on capillary embolism the symptoms were compared with those produced by the injection of organic powders into the arteries and into the veins, but the variable results obtained showed no resemblance to the uniform effects of fuchsine. They therefore concluded that the effect is a primary one upon the nervous system.

DR. DEVILLE AND THE HARROGATE COMMISSIONERS.

THE long-standing dispute between Dr. Deville and the Harrogate Improvement Commissioners, the circumstances of which must be familiar to a large number of our readers, was the subject of a trial at the recent York Assizes, in which Dr. Deville claimed £25 (one quarter's salary) from the Commissioners, the latter alleging that the plaintiff was not their medical officer, and that no salary was due to him. Our space does not permit us to go fully into the trial, a report of which occupies several columns of the local newspapers, but we will briefly state that the result was favourable to the plaintiff. Certain legal objections were raised which his Lordship, Mr. Justice Lopes, reserved for discussion in London, until which judgment is reserved, but a nominal verdict was entered for the plaintiff in the amount claimed. Dr. Deville, of course, must have incurred a great pecuniary outlay already in this case (not yet finally over), and we understand that an appeal will be made to the profession to assist in defraying his expenses, present and prospective.

THE LATE EXAMINATIONS FOR THE PUBLIC SERVICES.

OWING to a typographical error which unfortunately escaped our notice, we were made to state, in a brief note last week on this subject, that the application of the short-service system had obviously proved "a successful experiment," which is just what it notoriously has *not*, seeing that only seventeen candidates were obtained for the fifty advertised vacancies! The Indian Medical Department, which is a long as opposed to a short service, on the other hand, drew, as we stated, a large number of candidates, it being the only service of the three in which competition was anything more than a name.

A MEDICAL MARTYR.

No subject of Her Majesty—not even in the naval or military service—exposes himself to so much suffering or to such risk of life as the medical practitioner—a fact which our antivivisection friends should recollect when taxing us with a disregard of inflicting pain or death itself for the purpose of establishing a law of universal cure. A case in point has just reached us from Venice. Dr. Frederick Keppler, in practice there as a surgeon, and known to the scientific world by his masterly monograph on the sensory power of the palate—a monograph which received the prize of its author's graduation-year at the University of Tübingen—was making some experiments on himself by the subcutaneous injection of a new medicine, when suddenly he became unconscious, and though partially restored

to sensibility by the care of his friends, still lies in the greatest danger. The last bulletin regarding him gives but little hope, and much commiseration is expressed for him in the city of his adoption.

WHAT BECOMES OF TRANSFUSED BLOOD.

M. ALBERTONI, in a communication to Brown-Séquard's *Archives de Physiologie*, dated from the Physiological Laboratory of Sienna, states that his experiments have satisfied him that blood transfused from one animal to another of the *same* species serves to form living tissue, and may be considered to constitute a blood-graft. 2. Blood transfused into an animal from one of a *different* species will not serve to form living tissue; the corpuscles dissolve, and their colouring matter is eliminated by the urine, whilst their stroma, stopping up the capillaries, obliterates them, causing grave accidents, and even death. The danger of transfusion from one animal to another of a different species is due to the corpuscles, and not to the plasma, as is shown by the circumstance that the injection of serum is devoid of danger. He finds further that the injection of an acidulated solution of the ashes of a certain quantity of incinerated blood of one animal into the veins of an animal of different species is not productive of abnormal phenomena, whilst the injection of the blood itself is fatal.

THE PARKES MUSEUM OF HYGIENE.

WE are glad to hear that the Council of University College have granted the necessary space for this museum, which will, we trust, prove not only a fitting memorial to one of the most illustrious pupils of the College, but a practical boon to all who are interested in sanitary progress. The executive committee will proceed forthwith to occupy the space allotted, and are ready to receive offers of the gift or loan of objects of hygienic interest. The collection will comprise models, apparatus, food specimens, architectural and engineering plans, and books and reports having reference to sanitary matters. The subscription list is still open, and there is every hope that the museum may be permanently endowed. All communications should be addressed to the Secretary, Parkes Memorial Fund, University College.

VACCINATION.

DR. W. T. ILIFF, medical officer of health for Newington, has presented a very important report on vaccination to his vestry. It was referred to Dr. Iliff to state in detail his opinion as to the propriety of vaccinating direct from the animal. The general practice of vaccination, as performed both in the United Kingdom and abroad, is recapitulated in a very careful and painstaking manner, and good practical reasons are given why, at present, the medical officer cannot recommend his board to undertake the carrying out of animal vaccination. The report is, in fact, one of a kind the compilation of which may be studied by health officers with great advantage to the general community. If more pains were taken, in times of quiet as well as of panic, to popularise prophylactics by giving, as in this report, clear and condensed particulars of their advantages, we should have among public bodies less antagonism to, and more progress in, good-class sanitary work.

THE ARCTIC INQUIRY.

ALTHOUGH the gist of the report of the Committee on the Arctic Expedition may have transpired, it will be obvious it cannot have done so without wandering out of official channels. Comment is, we think, for the present, premature.

THE DUBLIN COW-POCK INSTITUTION.

LET it be hoped that the recent action of the Government in respect to the Dublin Cow-pock Institution is an earnest of further changes in respect to the vaccination arrangements and the vaccination laws of Ireland. The institution in question, Sir M. Hicks-Beach stated in the House of Commons a few nights ago, will, like the National Vaccine Establishment of England, now be entirely supported by a public grant, and carried out under the supervision of the Irish Local Government Board. This is as it should be. Let us hope that the defects in the vaccination laws of Ireland, to which we referred last week, will also be remedied by Parliament in the present session.

HOSPITAL SATURDAY COLLECTION AT BIRMINGHAM.

THE sum paid in up to the present, as the result of the collections for the medical charities of Birmingham in the manufactories and workshops last Saturday, amounts to £2331 9*s.* 2*d.* Although more remains to be collected, it is probable that the total amount will not come up to that received last year (£2640), but this falling off is not due to any want of interest in the charities on the part of the working men, but rather to the depressed state of trade, by which many of the operatives of the town are greatly affected at the present time.

FALSE MEDICAL TITLES.

ANOTHER impudent quack, charging one guinea for advice and medicines, and appending to his name an imposing number of letters—M.R.C.P.L.A.—has been fined by the stipendiary magistrate at Birmingham, Mr. T. C. S. Kynnersley. The defendant's name was Key, and the proceedings were taken under the Medical Act. The full fine of £20 was inflicted, including costs. We are curious to know whether the police of Birmingham will imitate the police of London and appropriate the fine, which ought to go towards the defrayment of expenses.

THERE does not seem to be any immediate prospect of improving the condition of "Oakham Bay" and Wickham-place, Chelsea, spite of the evidence lately adduced tending to show that they were nurseries of infectious disease. A motion of Dr. Edwards Crisp, at the Vestry Board, in favour of requesting the Local Government Board to send a medical inspector to visit the localities and report thereon was not even seconded, although enforced by a return which he had obtained from the Stockwell Fever Hospital, showing the number of typhus and typhoid cases which had been admitted from those streets. From the 6th October last to the 23rd February in the present year, 38 cases of typhus were sent to Stockwell from Wickham-place and Oakham-bay (consisting of about 55 houses, many of them uninhabited). Such facts prove beyond all dispute that the places are pestilent areas, and imperatively call for some energetic action on the part of the authorities. If the Chelsea vestry will not do the work so obviously incumbent on them, other and higher hands must, in the interest of the public health, take the matter up. As we intimated before, a little patching up will not do. A sweeping measure under the Artisans' Dwellings Acts is demanded.

THE Ledwich School of Medicine, Dublin, has been disfranchised by the Academic Council of the University of Dublin, on account of an irregular certificate which had been given by one of the proprietors of that School to a student attending Mercer's Hospital and the University of Dublin.

THE annual report of the medical officer of health to the Holsworthy rural sanitary authority for the past year has been issued. A full account of the diverse conditions affecting the health of the district is presented. In the town of Holsworthy the scarcity of cottage accommodation is said to be so great that overcrowding of a most abominable description occurs prejudicial alike to the health and morals of the people. Altogether it cannot be a very desirable place to live in. The Adulteration Act is described as a dead letter in the locality. It is a common practice for beasts to be slaughtered whilst suffering from disease, and the flesh to be sold at low prices. "Canded" sheep, unless extremely dropsical and diseased, are always utilised in this manner. "Hundreds of such sheep," writes the medical officer, "are sent from here; and other animals, especially if pretty fresh in condition when illness befalls them, are often so used." We believe that much of the prime beef and mutton of Holsworthy goes to Plymouth. The revelation to which we give publicity should cause the sanitary authority of this large town to exercise the closest surveillance over its meat supply.

WE have received a report of the Delancey Fever Hospital, Cheltenham, for 1876. There were very few cases treated during the year. The following scale of payments for treatment, taken from the rules of the Delancey Hospital, may interest those engaged in establishing hospitals for infectious diseases elsewhere. Patients within the Union, if suffering from small-pox, are admitted at a charge of 2s. 6d. a day; if from scarlet fever, 3s. a day: the charge to include the necessary food and wine, washing, and disinfection of personal clothing. Persons who desire the use of a private room will be received at a sum not exceeding half-a-guinea a day, including all but the fees for medical attendance and the nurse's wages.

CAPT. ALLEN YOUNG has just presented to the museum of the Royal College of Surgeons a collection of the skulls of Esquimaux, obtained by himself and the surgeon of his vessel, Mr. Horner, during the last cruise of the *Pandora*. Most of them are from Upernavik; but one belongs to a tribe located in the neighbourhood of Whale Sound, at the north of Baffin's Bay, and is therefore further north than any point from which remains of human beings have been hitherto brought to Europe.

THE Twentieth Annual Report on the Health and Mortality of the Parish of Lambeth for 1875–6 has been issued by Mr. A. Farr, medical officer of health. The death-rate of the whole parish in the period was 23·6 per 1000 annually, or, excluding strangers who died in public institutions, &c., 22·11 per 1000. These returns compare favourably with those of the previous year, and imply a fairly satisfactory sanitary condition of a densely populated district.

A PUBLIC meeting of the Sanitary Institute of Great Britain will be held on Wednesday next, in the rooms of the Society of Arts, John-street, Adelphi, to consider the report recently issued by the committee appointed by the President of the Local Government Board on the Disposal of Town Sewage. His Grace the Duke of Northumberland will preside on the occasion.

THE Metropolitan Asylums Board have issued a statement repudiating the charge brought against the managers in the House of Commons that there had been unnecessary delay in carrying out the building of the new hospitals at Fulham and Deptford. It appears to us that the Board make out a good case, and show the allegation to have been unfounded.

THE rate of illegitimacy appears to have been unusually large in Scotland lately. Thus in the past quarter it exceeded 13 per cent. in seven counties, ranging from 13·7 per cent. in Aberdeen to 17·7 in Wigtown. Elgin follows closely on the latter with a rate of 16·5 per cent.

PROF. FLOWER, the conservator of the museum of the College of Surgeons, will commence his course of lectures on the Comparative Anatomy of Man, in the theatre of the College, this day (Friday).

WE understand that Professor Allen Thomson intends shortly to resign the chair of Anatomy in the University of Glasgow.

H.R.H. the Prince of Wales will reopen the wards of Charing-cross Hospital on the 21st of this month.

THE SMALL-POX EPIDEMIC.

IN twenty of the largest English towns, having an estimated population of about seven millions of persons, 103 fatal cases of small-pox were registered during the week ending 3rd inst., against 95 and 118 in the two preceding weeks. Of these 84 occurred in London, 12 in Liverpool, 5 in Manchester and Salford (exclusive of 3 fatal municipal cases in the Monsall Hospital), 1 in Leeds, and 1 in Newcastle-upon-Tyne. No death from small-pox was recorded in any of the fourteen other towns. The fatality of the epidemic in Liverpool, Manchester and Salford, though lower than it was at the beginning of the year, has been very stationary in recent weeks. The 48 fatal cases registered in Liverpool during the four weeks ending 3rd inst., included 16, or a third, that were not certified as to vaccination; of the 32 certified cases 20 were of unvaccinated and 12 of vaccinated persons. In order to judge fairly as to the significance of these proportions, it should be remembered that the vaccinated persons in the English population are probably nine times as numerous as the unvaccinated. No less than 27, or 56 per cent., of the above-mentioned 48 fatal cases of small-pox in Liverpool occurred in private houses, a proportion exceeding that which prevailed in London. The Liverpool Town Council, as the borough urban sanitary authority, has not yet provided any hospital accommodation for non-pauper cases of infectious disease, and in this respect Liverpool is not in a better position for attempting to control the small-pox epidemic than the metropolis.

In London the deaths registered from small-pox, which had been 72 and 104 in the two preceding weeks, were 84 in the week ending 3rd inst., of which 37 were certified to be of unvaccinated and 23 of vaccinated persons, while in the remaining 24 cases the medical certificates did not contain any information as to vaccination. Of the 37 unvaccinated cases, 15 were of children under five years of age, and 12 of young persons aged between five and twenty years. Nearly all the 23 cases certified as vaccinated were of adults, not one of whom was stated to have been revaccinated. Bearing in mind the small proportion of the English population supposed to be unvaccinated, the comparatively large numbers of fatal cases of small-pox certified to be unvaccinated is noteworthy, and is so incredible to anti-vaccinationists that they boldly assert it cannot be true. The attempt to disprove the Registrar-General's small-pox statistics, so far as they relate to vaccination and are derived from the certificates of registered medical practitioners, by hearsay evidence picked up from surviving relations, who are often directly interested in proving that they have not been guilty of neglect in the matter of vaccination, scarcely deserves serious discussion. It appears desirable, however, that the Local Government Board should investigate the defects of the vaccination system,

or the way in which it is worked, accounting for the statement of the Registrar-General in his last two weekly returns, that during the fortnight ended 3rd inst., the deaths of 31 unvaccinated children (under five years of age) were registered from small-pox in the metropolis; of these, 10 occurred in East, and 12 in South London. It is quite possible that some of these children had been in some way or other vaccinated, but it was certified that they bore no vaccination marks. Nothing short of a systematic examination of all the children attending elementary schools will decide how large a proportion of the infant population of London are really protected from small-pox by efficient vaccination. The statistics of small-pox hospitals, however, prove conclusively that the extent of protection may easily be ascertained by a competent inspection of the vaccination cicatrices.

The 84 deaths from small-pox in London included 36 in the metropolitan asylum small-pox hospitals, 4 in other institutions, and 44, or 52 per cent. of the total cases, which occurred in private dwellings. After distributing the hospital cases, the Registrar-General reports that 11 of the deceased small pox cases had resided in Lambeth, 8 in Pancras, 7 in Poplar, 7 in Southwark, 6 in Bethnal-green, 5 in Bow, and 5 in Newington; in all, 6 belonged to the west, 16 to the north, 2 to the central, 27 to the east, and 33 to the south groups of districts. The numbers showed a general decline, but the fatality was again proportionately greatest in East London. The value of the sanitary organisation which prevails in different parts of London may be partially estimated from the varying proportion of fatal small-pox cases occurring in hospitals and in private dwellings. The greatest neglect in this particular appears to prevail in Lambeth and Bow. In Lambeth only 3 out of 11 small-pox deaths were recorded in hospital, and in Bow only 1 out of 5.

The weekly returns furnished by the Metropolitan Asylum Board afford invaluable assistance in forecasting the future of the epidemic, and unfortunately the prospect is not yet brightening. On Saturday, 3rd inst., their hospitals contained 907 small-pox patients (including 108 convalescents at Limehouse), against 901 and 916 at the end of the two preceding weeks, and the new cases admitted during the week were 230, against 238 and 205 in the two previous weeks. These facts forbid us to hope for any considerable decline of the fatal cases for some weeks to come, more especially as we see that the proportion of cases treated in hospital is so small in those portions of east and south London where the disease is most fatally prevalent.

THE ROYAL COLLEGE OF SURGEONS.

AT the meeting of the Council of the College of Surgeons on the 8th inst. the minutes of the former meeting were read and the ordinary business transacted.

The vacancy in the Council caused by the death of the late Sir Wm. Fergusson was announced, and a motion of condolence with the members of his family unanimously carried.

Thanks were accorded to Sir James Paget for his oration, and a request made that it should be published, with which Sir James, in answer, said he should be pleased to comply.

Thanks were unanimously given to Mr. Trimmer for his successful exertions on the occasion of the visit of H.R.H. the Prince of Wales to the College.

The report of the Committee on the memorial of the Dental Surgeons was read, ordered to be printed and circulated amongst the members, and to be taken into consideration at a future meeting.

On the report of the Committee on the formula for alteration of the bye-laws relating to the education and examination of candidates for the Fellowship being brought forward for confirmation, the memorial, signed by 309 Fellows, objecting especially to the sixth section, or that which relates to members of the College of not less than ten years' standing, was read, and, after a lengthened discussion, it was agreed that the consideration of that memorial and any action upon that report shall be suspended until the questions involved shall have undergone reconsideration by the Council. A meeting for that purpose was directed to be held on the 22nd inst.

The report of the committee on Section 18 of the bye-laws was received and adopted, which gave the Council the power of conditionally restoring members of the College who shall have forfeited their membership by misconduct.

Mr. Holt's motion could not, according to legal opinion, be adopted.

Mr. Hancock's motion relating to the Conjoint Scheme was deferred.

MEDICAL MICROSCOPICAL SOCIETY.

THE annual general meeting of this Society was held on the 19th of January last; Dr. J. F. Payne, President, in the chair. This was the first meeting held in the new rooms of the Society, at 6, Pall-mall-place, W., and the additional comforts and advantages offered over the old room seemed to be fully appreciated by those present.

The Secretary's report for the past year was read.

The following communications were read before the Society during the past year: Dr. Payne's presidential address; Development of New Bloodvessels, Dr. Thin; Browning's Triplet, Mr. Jabez Hogg; Modification of Pritchard's Microtome, Mr. Giles; Hints on the Systematic Study of Histology, Dr. Woodman; Cirrhosis of the Liver in a Child, Mr. Needham; Freezing Microtome, Mr. Williams; Microscope for viewing the Circulation in the Human Frænum Lingum, Dr. Pritchard; Carcinoma of the Liver simulating Cirrhosis, Dr. Goodhart; Myeloid Sarcoma, Mr. Needham; Organ of Corti in Mammals, Dr. Pritchard; Rodent Ulcer, Mr. Golding Bird.

The *soirée* of the Society was held on Jan 30th. Of the fifty-four microscopes exhibited twenty-four were devoted to a series of typical tumours. Besides these a variety of instruments and photographs were shown. The number of members of the Society in December, 1876, was 129.

Several presents during the past year, both of books and specimens, were received, and upwards of seventy different preparations, besides apparatus, were exhibited at the close of the meetings, in the same period.

The treasurer's report showed on December 31st, 1876, a balance of £30 9s. 5d., against one of £20 9s. at the same time in the previous year. The *soirée* expenses amounted to £19; the actual increase in the income of the Society was, therefore, £30.

Correspondence.

"Audi alteram partem."

PROFESSOR LISTER AND CLINICAL SURGERY IN THE LONDON HOSPITALS.

To the Editor of THE LANCET.

SIR,—In answer to an address and requisition from the students attending the Medical School in Edinburgh, Professor Lister not only very gracefully refused by anticipation an offer which had not been made, but at the same time is reported to have said that "the magnificent opportunities of demonstrative teaching presented by clinical surgery in the London schools are to a great extent neglected," and that, when compared with his own system, it is a "mere sham"; and he based this accusation upon his own personal experience and the universal testimony of foreigners.

Now, Sir, without asking what the Professor's own personal experience means, or defending the teaching of the school in which he was educated, as a teacher of clinical surgery at a large London hospital I must raise my protest against such a very sweeping charge as he has made; and, whilst speaking only for Guy's, express my conviction that the surgical clinical teachers of that institution, collectively and individually, utilise to the utmost of their power, for clinical demonstrative purposes, the splendid material with

which they are supplied; that their system of clinical teaching is based upon that which, by Bright, Addison, and Gull, Astley Cooper, Aston Key, and John Hilton, has not been hitherto unsuccessful; that, if their system is not the best in theory, it has not been "a sham" in practice; and that, if their opportunities have been neglected to a great extent, it is because the material with which they have been supplied has been so profuse that it has not been within their power to turn it all to a demonstrative account.

The system of teaching we adopt at Guy's may differ from that which is followed by the learned Professor, but it is not contemptible; it has stood the test of time, and gives full scope to the most enthusiastic teacher, and abundant opportunities of learning to even the average student.

The system adopted by the northern Professor has doubtless the same recommendations. In his hands his own method of teaching, as of practice, is doubtless good; it may be all he can desire, or something more; and as a system it is probably to him most "potent for good."

But *systems* of teaching are one thing and *teachers* another. By no system, however good, can a bad teacher be made bright; by no system, however bad, can a good one be hampered. For genius in any form can turn to good account whatever material it may have before it. In teaching, it will make a bad system speak and a good one possibly appear perfect, as it can show how a great principle of practice can be demonstrated by the meanest germ.

Possibly, however, Mr. Editor, the Regius Professor of Clinical Surgery of Edinburgh did not quite mean what he is reported to have said, or that he was led away by the enthusiasm with which he was surrounded; and if so, let me express a hope that, although "there exists nothing in London at the present time which is good enough to call him away from his own school," he will in his calmer moments believe that there is good clinical surgical teaching to be had in some London schools, if not in the one in which he gained his experience; that clinical surgery in the south is not a "mere sham"; and that, although his own system of teaching may differ from ours, ours may still be good.

Believe me, Sir, faithfully yours,

Upper Brook-street, March 7th, 1877. THOMAS BRYANT.

To the Editor of THE LANCET.

SIR,—I have only just seen the *Scotsman* of the 23rd February, in which is an account of the presentation of an address to Professor Lister by the Edinburgh medical students on the supposition that he was to be offered the Chair of Clinical Surgery at King's College, and his reply thereto.

The address was most affectionate, and everyone who knows Professor Lister will feel that he is well worthy of it. I cannot but deeply regret that his reply should have been so unworthy of himself, and that he should have made it appear to those who do not know him well, that he sought to please his audience and to exalt himself by detracting from the merits of the schools of surgery of the sister metropolis in calling their clinical teaching a "mere sham." As the address was presented under the impression that a very great compliment was being paid him by one of those schools, the lack of courtesy in the reply was painfully apparent.

I consider myself fortunate in having within the last day or two paid a visit to the surgical wards of the London Hospital, as my testimony to the teaching I saw there may tend to counterbalance that of the foreign visitors, who, I fear, must have been flattering Professor Lister at the expense of truth.

I went down to the hospital on Tuesday last quite unexpectedly and joined Mr. Maunder as he went his rounds. Of course the cases were very numerous and varied; several new cases were admitted, and I was much struck with the careful, intelligent, and interesting way in which these cases especially were brought to the notice of the students who went round with us. A case of hip-joint disease I recall as being particularly illustrative of the truth of the above statement. The objective and subjective symptoms were most carefully pointed out. The instinctive way in which the little fellow held the limb to prevent motion, the position, the peculiarity and difficulty of the several movements, and so forth, were dwelt on in a most instructive way; and so on with all the new cases and many of the old. Another case I particularly recollect was one of incontinence of urine, which, under careful examination into the past history and the present condition of the urinary organs, presented no apparent cause to account for the affection. Mr. Maunder investigated this case most carefully and intelligibly to his class, and solved the problem.

I give these cases as merely illustrative of the work of two hours during which I was in the wards. I left with the feeling that I had been taught much myself, and with the impression of the immense value such teaching must be to those who were learning the art and science of surgery. I have not been over any of the other hospitals lately, but I have not the least doubt that in all the teaching would be found the same.

In conclusion, Sir, I must express a hope that Professor Lister could not have meant seriously to stigmatise as "a sham" the teaching of the many distinguished men who adorn our ranks in the metropolis, from under whose teaching so many have gone forth to be an ornament to the profession and a blessing to mankind.

I remain, Sir, yours faithfully,

WALTER A. LESLIE,
Surgeon-Major Madras Army (retired).

Thurlow-road, Hampstead, March 4th, 1877.

To the Editor of THE LANCET.

SIR,—As being personally cognisant of the manner in which clinical surgery is taught in London hospitals, I cannot but think that my friend Professor Lister (as reported in the public journals) has described our system of clinical instruction in terms which the circumstances of the case scarcely warrant.

He is reported to have said that clinical surgery as taught in London is a "sham." "Sham" is defined by Johnson to be a "low word," synonymous with "fraud, trick, delusion, false pretence, imposture."

Now, although it seems that Mr. Lister has an indifferent opinion of our system of clinical teaching as compared with his own, I do not believe that he considers us to be perpetrators of either fraud, trick, delusion, false pretence, or imposture.

In the hope and belief that Professor Lister may see fit to withdraw his hard words against teachers of clinical surgery in London,—I am, Sir, your obedient servant,

Stratford-place, March 6th. THOMAS SMITH.

CHEYNE-STOKES' RESPIRATION.

To the Editor of THE LANCET.

SIR,—In THE LANCET of February 17th I noticed a leading article on "Cheyne-Stokes' Respiration." While house-physician at St. Bartholomew's Hospital I paid considerable attention to the phenomenon, and observed it in four cases.

1. A patient with mitral constriction and also a dilated aorta. The rhythmical irregularity in the breathing began about four weeks before his death. An autopsy was not obtained.

2. A patient, still alive, with double aortic and mitral systolic murmurs.

3. A child with acute nephritis following scarlet fever.

4. A young man suffering from typhoid fever complicated with pneumonia.

Cases 1 and 3 were fatal; recovery cannot be looked for in the second. The fourth case recovered completely, and in a few days I hope to submit the notes of the case to you. In Cases 1, 2, and 4, the phenomenon was typical, but in Case 3 there was, with the ascending and descending rhythm, no perceptible period of apnœa.

In Case 4 the heart-sounds were very weak, so as to be almost inaudible, and the first sound was blowing. There was no coarse structural lesion either of the heart or the aorta. In all cases the patient was in a state, more or less, of stupor.

The third case bears out the assertion of Von Dusch, that Cheyne-Stokes' breathing occurs in uræmia.

I am, Sir, yours truly,

R. WHARRY, M.B.,
Late House-Physician, St. Bartholomew's Hospital.

February 28th, 1877.

THE MEDICAL ACT OF 1858.

To the Editor of THE LANCET.

SIR,—As Honorary Secretary to the Committee appointed by the Council of the Medical Defence Association to report what amendments were necessary to render the Medical Act of 1858 more effective to prevent illegal practice, I have to inform you that the draft of proposed amendments somewhat freely circulated within the last three weeks has in no way emanated from the Medical Defence Association, but is the independent production of a member of the profession.

As some misconception has arisen with regard to the authorship of this document, I trust, on behalf of the committee, you will give this disclaimer early publicity.

I have the honour to remain, Sir, your obedient servant,

N. C. MACLEAN, M.D.

Office of the Medical Defence Association,
6, John-street, Bedford-row,
March 6, 1877.

THE CHILDREN'S HOSPITAL, PENDLEBURY.

To the Editor of THE LANCET.

SIR,—Mr. Steinthal having, as will be seen, entirely failed to meet my statements, and attempting now to cast reflections upon me which are neither truthful nor relevant to the subject under discussion, it is unnecessary for me to take further notice of his letter, and I have only now to offer you my best thanks for having afforded me the opportunity of exposing a very glaring abuse.

I am, Sir, your obedient servant,

Eccles, February 20th. CHAS. A. RAYNE, M.B. Lond.

*** With this letter, which was inadvertently omitted from our last number, the correspondence must cease.—ED. L.

MEDICAL OFFICERS OF HEALTH AND POOR-LAW MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—Would you kindly insert the enclosed resolution, and oblige yours,

J. WICKHAM BARNES,
Honorary Secretary of the Poor Law Medical Officers' Association.

3, Bolt-court, Fleet-street,
March 7, 1877.

At a meeting of the Council held at 3, Bolt-court, Tuesday, 6th March, it was resolved,—That this Council, having taken into consideration the statement of Mr. Ashburner, medical officer of the Horsham Workhouse, in reference to the conduct of Dr. Kelly, medical officer of health for West Sussex combined district, begs to express its condemnation of the course pursued by that gentleman, and trusts that the Local Government Board will issue such general instructions as will preclude the possibility of such action being followed by any medical officer of health towards any Poor-law medical officer in future.—That a copy of this resolution be forwarded to the medical journals and to the Local Government Board.

Obituary.

RICHARD GULLETT WHITFIELD.

THE death of Richard Gullett Whitfield, announced in our issue of the 24th ultimo, is an event which demands something more than the very brief notice there accorded to it. He was the last of a series of officials who, though now improved away, represented in their own persons the traditional glories of their hospitals, and wielded probably more real power than surgeons, physicians, or even treasurers. They were apothecaries, which means that they occupied the finest houses, after the treasurers', within the hospital walls, that they dispensed more lavish hospitality than any other hospital official, that the drug and wine departments were their immediate charge, that they were the resident medical officers, and as such had the entire medical care of the patients in the absence of the physicians and surgeons, that the ventilation and general sanitary condition of the wards were under their supervision, that the sisters and nurses, and other subordinate officials, had to obey their orders, that even the dressers were in some degree under their governance, and that they shared the pupils' fees. They were medical secretaries, which implies that they attended all meetings of the medical officers and lecturers, and kept their minutes, that they had votes equally with other members of the school, that they were the treasurers of the school fund, that they were the depositories and expounders of all unwritten laws and regulations, and that the general management of the school, of the school-buildings, and of the *employés* was in their grasp. For school and hospital alike they were permanent grand viziers, and it was largely if not mainly through them that treasurers derived their knowledge of hospital and school affairs, and through the information thus acquired, if not through them, that they acted for good or evil.

The post of apothecary to St. Thomas's Hospital had been hereditary in Mr. Whitfield's family. His grandfather, who was of an old Shropshire family, was appointed in 1752, and continued in office until 1800, dying at the age of seventy-six in the course of the following year. His father succeeded to the apothecaryship in 1800, and held it until 1832, dying, aged sixty-seven, five years later. On his retirement the subject of the present memoir received the appointment.

Mr. Whitfield was born on the 31st January, 1801, was sent to Eton when about nine years old, and continued there until he went to St. John's College, Oxford, where he matriculated in 1818 or 1819. It was then intended that he should take his degree and become a physician. But he had not been at college more than a term or two when he was suddenly recalled to London and entered as a student at St. Thomas's Hospital. It was at this time that the united schools of St. Thomas's and Guy's and the rival school of St. Bartholomew's were at the zenith of their reputation, and Mr. Whitfield, like many others, studied at both. In 1822, when twenty-one years of age, he became a licentiate of the Society of Apothecaries, and in the same year was appointed assistant to his father. He became a member of the Society of Apothecaries in 1824, married in 1828; was elected apothecary in 1832, and medical secretary in the course of the next year. He continued apothecary down to the removal of the hospital to its present site in the year 1871, then retiring on a pension; and medical secretary to within a month or six weeks of his death, which took place on February 20th of the present year, at the ripe age of seventy-six.

No man was ever more thoroughly identified with an institution than Mr. Whitfield with St. Thomas's Hospital; he loved it with an almost idolatrous love; its success was his success, its failures his failures, and he strove heart and soul through a long life to further in every way what he considered to be its best interests. The separation between the united schools of St. Thomas's and Guy's occurred while he was assistant to his father—at a time, therefore, when probably he was compelled to be a mere passive spectator of a crisis which he deplored. But no other event of any importance to the hospital or school took place in which his influence was not more or less conspicuous. It was in great measure through his ascendancy over the late treasurer, Mr. Baggallay, that the early hour of visit to the hospital wards, which has now been continued for nearly twenty years, was forced upon the medical staff. When, a few years later, the question of the removal of the hospital from its historic site in the Boro' came on for decision, he advocated with characteristic and persistent vigour its translation into the country, with the retention of only a small supplementary hospital or receiving house in London. But when he found his hopes in this direction frustrated, he co-operated loyally with his colleagues and the governors in securing the site at Stangate, and he was largely, if indirectly, concerned in determining the construction of the hospital on the pavilion principle.

He was not great as a physician, nor were his attainments in chemistry or pharmacology of a high order; still he was a competent and zealous medical officer, and an excellent

head of the pharmaceutical department of the hospital, and in both capacities commanded the respect of his nominal superiors. It was mainly, however, as an organiser and administrator that he excelled. Under his immediate supervision and direction the ventilation and general sanitary condition of the hospital were never for a moment neglected; he gave much attention to the improvement of the diet and the promotion of the comfort of the patients; the question of out-patient hospital relief was one whereon he had definite and enlightened views, which he embodied in a pamphlet; and the improvement of the nurses and of the nursing which has been so thoroughly effected in St. Thomas's Hospital during the last twenty or five-and-twenty years was due in no small degree to his persistent advocacy and efforts. Further, it was largely owing to him that the Nightingale training-school for nurses was successfully established and carried on. At its institution in 1860 he was appointed medical instructor, and down to his retirement from the post in 1872 he taught the probationers by lectures and examinations, and conducted the establishment jointly with the superintendent, Mrs. Wardroper. It might be assumed from what has been said that he took little interest in the practice of medicine: the assumption would be so far true that he took little interest in individual cases of disease and in their scientific study, but he took a real interest in the diseases originating in hospitals, and in epidemics during their epidemic prevalence; and few who were at the hospital during the autumn of 1854 will forget the unselfish devotion with which, during that anxious period, he tended almost unaided the numerous cholera patients that were admitted within the hospital walls.

As age crept over Mr. Whitfield he still retained in a large degree the characteristics of his prime. He was still erect, still dignified, still handsome; his face was still smooth and ruddy; and he looked a dozen years younger than he was. His hair was scarcely shot with grey. He was still self-reliant, fond of power and quick of temper, still generous and kind-hearted. But those who knew him only as secretary to the Medical School at Stangate, knew a very different man from him who had been apothecary and medical secretary in the Borough. He was no longer the central figure in St. Thomas's; the reins of power which he had so long held had slipped from his grasp; he was a nonentity within the walls wherein he had once reigned paramount. And even in relation to the school, with which he was still associated, his authority was questioned, and by those who were only recently connected with it he was apt to be regarded as impracticable and obstructive. Unfortunately, too, he was becoming infirm, less from the inroads of time than from the effect of painful illness, and incapable of exercising that efficient supervision which is required of a secretary. But he clung to office and to the semblance of power almost to the last, only sending in his resignation when he lay prostrate with illness on the bed from which he never rose again. He died as he had lived, a genuine, true-hearted English gentleman; mourned by a widow (to whom he had been married for nearly fifty years) and by a numerous family, who were devoted to him; mourned sincerely by all those colleagues with whom his official life had been associated, and by numbers of others to whom his kindness of heart or substantial charity had though a long life endeared him. He was followed to his final resting place at Norwood, not only by members of his own family, but by the Treasurer of St. Thomas's Hospital, by the great majority of the medical and surgical staff and lecturers, and by a large assemblage of hospital students, and other friends.

DR. WILLIAM HENRY POWER.

Dr. W. H. POWER, after a long and successful career of nearly half a century as a private medical teacher, died on February 7th last.

He belonged to a family of medical distinction through four successive generations, and has brought up all his three sons to the profession. His great grandfather was a general practitioner in considerable repute in the Midland Counties, and a quaint inscription on his tomb, still existing in the churchyard of Polesworth in Warwickshire, claims for him the "invention of the fermenting cataplasm." His grandfather was a physician of large country practice at Lichfield, the intimate friend and contemporary of the famous Dr. Darwin, and the medical attendant and friend of many county celebrities of that time, including the first Sir Robert Peel, Lord Howe, the Marquis of Anglesea of Waterloo, &c. His father was Dr. John Power, an obstetric physician, whose views were considerably in advance of his time, as indicated by his "New Principles of Midwifery," and his "Essays on the Female Economy," published in 1819, in the latter of which he propounded, for the first time, as a theory it is true, the principles and physiology of menstruation now received.

Dr. W. H. Power was born at Market-Bosworth, in Leicestershire, May 13, 1811. His medical education was rather erratic, carried on in the private schools of Mr. Sleigh and the eccentric but talented Dermott, and the Westminster Hospital. He obtained a medical qualification in 1832, and immediately commenced practice in Abingdon street, Westminster, but very soon engaged in private medical tuition on the tutorial system, which, though now universally adopted in the medical schools as a necessary accessory to the general courses, was then all but unknown and ignored amongst them. Dr. Power saw the want, embraced the opportunity, and supplied it with very great success.

Removing, as his class increased, from one lecture-room to another, in 1835 he was to be found at his well-known rooms at Exeter Hall, surrounded by a large and attentive class; and here for many years he carried on his labours, and secured the firm attachment of his numerous pupils, not only by the geniality of disposition and the humour of his temperament, but also by the peculiar faculty which he possessed of imparting information in a thoroughly well arranged and systematic but condensed form. He not only communicated knowledge in an easily assimilable shape, but taught his pupils how to do justice to themselves, and to express what they knew. Dr. Power left no published works, but his "Lecture Notes," which always kept pace with the advance of medical science, are still cherished and consulted as *practical guides* by many an old pupil. For some years a very considerable proportion of the candidates for the licence of the Hall passed through his hands, at a time when they were far more numerous than at present.

In 1846, his brother, Dr. John A. Power, then a Fellow of Clare College, Cambridge, and M.A. and L.M. of that University, who had previously established a similar class in the borough, joined him, and under their joint exertions the classes have been maintained, and, after the introduction of the competitive system, largely developed and extended, so as to include the preparation of candidates for the public services, and that with very great success, "Powerites" being very largely distributed in every part of the world. Dr. Power took the degree of M.D. St. Andrews in 1860, by a special examination.

For many years he had suffered from cardiac and asthmatic affections, and during the last few years his powers have gradually failed under occasional attacks of more severe illness, though frequent sparklings-up of the old humour constantly exhibited themselves. For many months he was unable regularly to attend to the duties of his class, the burthen of which fell upon his brother, and after a last illness of a few weeks, the supervention of dropsy, with constitutional irritability and exhaustion, proved fatal on February 7th.

Dr. Power was in the sixty-sixth year of his age, and is interred in the cemetery at Brockley. He has left a widow and six children, of whom his three sons are all members of the medical profession.

PARLIAMENTARY INTELLIGENCE.

For the week ending March 8th.

HOUSE OF COMMONS.

ARMY ESTIMATES.

In his speech on the Army Estimates Mr. HARDY said: I am going to touch on a subject which has proved very troublesome since I have been in office, and which I fear will long continue to be so. When I came into office I found that steps had been taken for establishing what was called the Staff system of the medical service, instead of what was the regimental system. Changes had been made under a Royal Warrant issued at the suggestion of my predecessor

in 1873, and there was a great deal of discontent and dissatisfaction when I came into office. From the first moment I arrived there I received deputations and was battered by memorialists in a way in which, no doubt, all my successors will be. But I can assure the medical men, whether they be in the army or outside it, that I have done my best to arrive at a knowledge of their grievances, and if possible to meet them. There is, however, a division of opinion among medical men as to the relative benefits of the regimental system and the staff system; and, moreover, a sort of half-and-half system also existed, though the attempt to combine the two was not satisfactory. That is to say, there was a plan of attaching a man to a regiment for five years, but all kinds of qualifications were introduced in order to put him on the old regimental footing. After looking carefully into the subject I have come to the conclusion—I think rightly—that that which everybody admits to be the proper arrangement and regulation in time of war should also be the regulation and arrangement in the time of peace. That is, I propose that there should be a unification of system. What is the case in time of war? A small cavalry regiment may have two medical men, although perhaps the regiment may have no need of a doctor. Consequently the time and the skill of these medical men are wasted. The present system is one in which there is every sort of medical school, and in which the best medical men are in the hospitals, and there is a training school showing how the hospitals must be managed, as in war. You must have these general hospitals, and take medical men where they are wanted, for the efficiency of the service. That is the principle of what is called unification. The health of the army at home and abroad was very good last year, in spite of the arrangement of the medical men, to which they may have objected, and I believe that at this moment the health of the army is very satisfactory, except upon certain points which sometimes give us painful discussions in this House. This being so, it seems to me unreasonable to call upon me to reconsider the subject when a re-arrangement was only made on the 12th of last July. There has really been no time for trial. It is only reasonable when a new system has been adopted that you should give it a fair trial, to see, first, whether, under it, medical men will enter the service in sufficient numbers; secondly, whether it works well in practice; and, lastly, whether any such grievance exists as requires alteration. Until there has been experience on these points, we must go on as we are. Meanwhile, I may say that very great boons have been conferred on medical men. They were promoted three years earlier than they asked for—namely, in twelve instead of in fifteen years, because they were put upon the same footing as medical men in the Indian service; and though I know that medical men, like other men, would wish to remain on full pay as long as possible, some system of retirement was necessary in the interests of the younger men, and with a view to secure a proper scale of promotion, and I do not think that the existing plan of retirement can be complained of by those who benefit by it. I adhere, therefore, to the unification system till it has undergone a much longer test, because I am told it is answering well, and it appears satisfactory to the heads of the department, who are in constant communication with members of the administrative and executive body. Something has been said respecting the employment of civil practitioners. No doubt in some instances it is thought advisable to employ civil practitioners, because at stations where there is only a very small detachment it would be absurd to place a military medical man there, and a civilian on the spot often likes to add to his fees by such employment as we can give him.

Dr. LUSH regretted that he could not join in the chorus of approval which had greeted the statements of the Secretary of State. He had hoped that some attempts would have been made to redress the grievances of the medical officers of the army. The medical officers of the navy were a few years ago just as discontented, but their grievances were redressed, and if the right hon. gentleman would only take example from the Admiralty, he would promise him that his office should be a bed of roses as far as the medical officers of the army were concerned. The College of Surgeons in Ireland had passed a resolution in open council advising their students not to enter Her Majesty's service on the ground that the position of medical officers in the army was such that they were practically outlawed. It was a startling fact that while the number of recruits had largely increased during the past year, the number of medical officers had diminished by twenty-five. If that decrease in the number of medical men were to go on year by year, it would be impossible for us to keep our army in an efficient condition. On a future occasion he should be prepared to show that the medical officers had real grievances which ought to be redressed.

MILLBANK DIETARY.

In answer to Sir E. Watkin,

Mr. CROSS stated that he had adopted the same diet table for civil prisoners in Millbank as had been adopted for soldiers by his right hon. friend the Secretary of State for War on the recommendation of a committee.

SANITARY STATE OF THE WAR OFFICE.

Mr. KAY-SHUTTLEWORTH asked the First Commissioner of Works what steps were being taken to carry out the suggestions of the committee on the sanitary state of the War Office; and whether, having regard to the opinion of that committee, Her Majesty's Government had any scheme under consideration for the erection of a new War Office.

Mr. GERARD NOEL said that plans and estimates were being prepared with a view to carrying out the recommendations of the Committee, and that whenever they were ready they would be sent to the Treasury for sanction and approval. When that approval was obtained effort would be made by the Board of Works to give effect to the recommendations. He feared he could not at present give any definite answer to the second part of the question.

THE ARCTIC EXPEDITION.

Captain PIM asked the First Lord of the Admiralty whether the three medical officers who were promoted from the late Arctic Expedition were so promoted on the recommendation of the Director-General of the Medical Department of the Navy; and, if not, whether any reference was made to that officer before such promotions were made, and why Fleet Surgeon Colan, the senior medical officer, was not included in those promotions; and if it was his intention to bestow any reward on that meritorious officer.

Mr. HUNT was sorry to be obliged, on the ground of general principle, to decline to satisfy the curiosity of the hon. and gallant gentleman. Promotions in the navy were made on the responsibility of the First Lord of the Admiralty, and the latter part of the question seemed to imply an ignorance of the rule that no promotions should be made unless there was a vacancy.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on March 1st:—

Lathbridge, Charles Frederick, Hemingford-road.
Macgeagh, Thos. Edwin Foster, Pemberton-terrace.
Prosser, Thomas Gilbert, Grenville-street.
Turner, Frank Edward, Lorraine-road, Holloway.

The following gentlemen also passed the Primary Professional Examination:—

Wood, Charles, Guy's Hospital.
Walker, Horatio Edward, London Hospital.

THE Holborn Guardians have increased the salary of Dr. Yarrow, medical officer to St. Luke's Workhouse, £100 per annum.

COLLEGE OF SURGEONS.—It is stated that upwards of 300 names are entered for the Preliminary Examination in general knowledge for the diploma of fellow and member of the Royal College of Surgeons of England, which commences on Tuesday next, at the University of London, Burlington-gardens. Candidates are required to be in attendance not later than 9 o'clock P.M. on that day.

CITY ORTHOPÆDIC HOSPITAL.—At the annual meeting, held on the 27th February, the Right Hon. the Earl of Aberdeen, Vice-president, in the chair, the financial statement and the report of the General Committee for the past year were read and duly adopted. By the report it appears that 1905 deformed persons, chiefly children, have been under treatment during the year 1876.

THE Wallasey sanitary authority have agreed to petition the Local Government Board to sanction their borrowing a sum of £1300 for the purpose of erecting in their district a hospital for the accommodation of persons suffering from infectious disease.

AT an adjourned meeting of the Governors of the Worcester Dispensary, alterations were made in the rules to the effect that in future the committee shall elect the medical officers in ordinary every three years, instead of annually, and fill vacancies as they occur; and that every legally qualified medical man who has been resident in the city for twelve months shall be eligible.

MEDICAL SOCIETY OF LONDON.—At the general meeting of this Society, held on Monday last, March the 5th, the following gentlemen were elected to the several offices named:—President: Dr. George Buchanan. Vice-Presidents: Dr. Thorowgood, Mr. F. W. Braine, Dr. Leonard Sedgwick, Mr. Richard Davy. Treasurer: Mr. T. H. Hill. Librarian: Dr. Theodore Williams. Secretaries in Ordinary: Dr. Clement Godson, Mr. J. Astley Bloxam. Secretary for Foreign Correspondence: Dr. T. S. Dowse. Council: Drs. John Brunton, T. Lauder Brunton, Farquharson, Sir Joseph Fayrer, Fothergill, Constantine Holman, H. Lawson, Robert Semple, and Wiltshire; Messrs. William Adams, W. Allingham, H. Royes Bell, Thomas Bond, W. B. Dalby, John Gay, J. D. Heaton, C. F. Maunder, W. D. Napier, Erasmus Wilson, and J. C. Wordsworth.

THE RECENT PROSECUTION OF A MEDICAL MAN AT CARDIFF.—At a special meeting of the Cardiff Medical Society, held in the board-room of the Cardiff Infirmary on Wednesday, the 21st inst., the following resolutions were carried unanimously:—That this Society, representing the medical profession at Cardiff and neighbourhood, desires to convey to Mr. D. Edgar Jones its deep sense of gratification at the successful vindication of his character from the cruel and unfounded charge which has been made against him in open court by persons of disreputable character, and its sympathy for the mental suffering he has undergone in consequence. That this Society also deeply regrets that the bench of magistrates, in the exercise of its discretion, did not consider it compatible with justice to request the presence of Mr. Edgar Jones, when such serious charges affecting his social and professional position were made, it being known that he was then in an adjoining room of the Town Hall. That copies of these resolutions be sent to Mr. D. Edgar Jones, and to the local papers.

Medical Appointments.

ALLEN, C. D., M.B., L.R.C.S.I., has been appointed Medical Officer to the Bagenalstown Fever Hospital, vice Trayer, resigned.

BENNETT, H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Builth Union Workhouse.

BRADY, J. C., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Normanton District of the Shardlow Union, Derbyshire, vice Borough, resigned.

BROADBENT, Dr. W. H., has been appointed Hon. Consulting Physician to the Hospital for Women and Children, Vincent-square, Westminster.

BROCKLEBANK, R., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed Medical Officer for the Grimsby No. 2 District of the Caistor Union.

CAPON, H. J., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Dorset County Hospital, Dorchester, vice Day, resigned.

CARTER, G. C., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Caversham District of the Henley Union, vice Phillips, resigned.

DALY, Dr. J., has been appointed Medical Officer, Public Vaccinator, &c., for the Clonmany Dispensary District of the Inishowen Union, co. Donegal, vice Carmody, resigned.

DE DENNE, T. V., M.R.C.S. & L.R.C.P., Assistant Medical Officer to the Bristol Lunatic Asylum, has been appointed Assistant Medical Officer to the Northampton General Lunatic Asylum, vice Dr. Bell, resigned.

HATFIELD, W. H., M.R.C.S.E., has been appointed Medical Officer for the Hambledon District of the Droxford Union, vice Gaman, resigned.

HENLEY, E. W., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Whitehaven and West Cumberland Infirmary and Fever Hospital, vice Wilding, appointed House-Surgeon to the Worcester General Infirmary.

JUMEAUX, R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Oystermouth Urban Sanitary District, vice Young, resigned.

LEITCH, J., M.B., C.M., has been appointed Medical Officer for the Abbey Holme District of the Wigton Union, Cumberland.

MACARTHUR, D., L.R.C.P.Ed. & L.M., L.F.P.S.G. & L.M., has been appointed Public Vaccinator for the Stanley and Lofthouse Districts of the Wakefield Union, vice Wood, resigned.

MACKAY, G., M.B., L.R.C.S.Ed., has been appointed House-Surgeon to the Dumfries and Galloway Royal Infirmary, vice Hay, resigned.

MILLIGAN, W., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Public Vaccinator for the Brassington District of the Ashbourne Union, vice Webb, resigned.

PEARCE, Mr. H., has been appointed Assistant to the House-Surgeon of the General Infirmary, Northampton, vice Parkinson, resigned.

SANDBERG, Dr. A. G., has been appointed Medical Officer to the Sheffield Friendly Society's Medical Association.

SANDELL, H. W. A., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed Medical Officer to the Lead Company's Workmen's Medical Union, Alston District, vice Davidson, whose appointment is about to expire.

SMITH, R. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Hackney Union Workhouse.

STAMP, W. D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Assistant Medical Officer to the Infirmary and Workhouse, St. Luke, Chelsea.

WELCH, J. B., M.B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Handsworth District of the West Bromwich Union, vice Downes, resigned.

WORTHINGTON, T. B., B.A., M.B., C.M., has been appointed Senior Assistant Medical Officer to the Sussex Lunatic Asylum, Hayward's Heath, vice Greene, resigned.

YEATS, G., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Walthamstow District of the West Ham Union, vice Browne, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BENHAM.—On the 28th ult., at Westgate-street, Ipswich, the wife of Henry J. Benham, M.B., of a son, prematurely, who lived only four hours.

FENTON.—On the 2nd inst., at Grey Friars'-green, Coventry, the wife of Mark A. Fenton, M.D., of a son.

GAYTON.—On the 26th ult., at the Homerton Small-pox Hospital, the wife of William Gayton, M.D., M.R.C.P.E., Medical Superintendent, of a daughter.

GRAHAM.—On the 3rd inst., at Park-gate, Yorkshire, the wife of Arthur Graham, L.R.C.P.Ed., of a daughter, still-born.

JAMISON.—On the 24th ult., at St. Helen's, Lancashire, the wife of Arthur Jamison, M.D., of a daughter.

KAVANAGH.—On the 5th inst., at Ierne House, Wickham-road, the wife of Patrick Kavanagh, M.D., of a son.

LEWIS.—On the 3rd inst., at Rosemount, Houston, Renfrewshire, the wife of William Lewis, M.D., L.R.C.P.Ed., L.R.C.S.Ed., of a son.

O'CONNOR.—On the 3rd inst., at Welshpool, the wife of Bernard O'Connor, M.D., of a daughter.

SCOTT.—On the 3rd inst., at Marford, Wrexham, the wife of R. R. Scott, L.K.Q.C.P.I., of a son.

WHITE.—On the 5th inst., at Kingston-on-Thames, the wife of George Farr White, F.R.C.S.E., of a daughter.

WHITE.—On the 28th ult., at Blessington-street, Dublin, the wife of William Dudley White, L.R.C.P.Ed., of a daughter.

MARRIAGES.

CARRUTHERS—WHEATLEY.—On the 1st inst., at St. Wilfrid's, Calverton, James Gurney Carruthers, M.R.C.P., to Helena Elizabeth, daughter of the late Thomas Wheatley, Esq.

CUMMINS—FLETCHER.—On the 13th ult., at the Parish Church, Wicklow, Henry B. Cummins, L.K.Q.C.P.I., to Isabella, widow of D. D. Fletcher, Esq.

DEATHS.

BROWNLIE.—On the 23rd ult., at Coventry, William Henderson Brownlie, L.R.C.P.Ed., aged 28.

BURN.—On the 3rd inst., at Pelham-place, South Kensington, Dr. Alexander Burn, late of the Bombay Medical Service, aged 70.

CAMPBELL.—On the 26th ult., at Crawford Villa, Maybole, John Campbell, M.R.C.S.E., aged 46.

DAVIS.—On the 25th ult., at Torquay, William Farquhar Davis, F.R.C.S.E., Surgeon-Major, Madras Army, aged 44.

NOBLE.—On the 25th ult., at Brixworth, Charles Noble, M.R.C.S.E., aged 70.

STONE.—On the 2nd inst., at Oldfield-terrace, Acton-vale, Thomas Stone, F.R.C.S.E., aged 70.

TAYLOR.—On the 25th ult., at Shanklin, Isle of Wight, John Taylor, Surgeon, aged 30.

WEBB.—On the 27th ult., at Basingstoke, Charles Webb, M.R.C.S.E., aged 62.

WEST.—On the 5th inst., at Camberwell, Maurice Thomas West, M.R.C.S.E., Surgeon R.N. (Retired List), aged 58.

YOUNG.—On the 24th ult., at Windsor, Henry Cherrie Young, L.R.C.S.I., aged 23.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Transactions of the Odontological Society of Great Britain.
Sanitary Institute of Great Britain.
Two Cases of Œsophagotomy.
The Veterinary Journal. March.
Monthly Microscopical Journal. March.
Hardwicke's Science Gossip.
Medical Plants.
Atlas of Skin Diseases.
A Course of Operative Surgery.
G. Fleming's Text-book of Veterinary Obstetrics. Part VII.
Vacher's Parliamentary Companion.
J. Barr on Reduplication of the Cardiac Sounds.

Notes, Short Comments, and Answers to Correspondents.

THE PLEA OF INSANITY IN THE HERTFORD CASE.

THE man Last having been "acquitted," it is not necessary to discuss the conditions of this particular case, in which the prisoner must have been held guilty, if he had not been assumed to be insane. We say *assumed*, because the evidence cannot be held to have proved that the murder was committed either unconsciously or without the knowledge that the deed was wrong. This is the legal requirement, and we fail to see how it was fulfilled. The statute is construed somewhat vaguely, and juries are not to be blamed if compassion impels them to take the largest possible advantage of the breadth allowed. The learned Judge in this case of Last directed the jury that "if the man had brought himself to fancy that it was for the best to kill his children, but also knew that it was wrong and contrary to the criminal law to kill them, then he was certainly guilty." The practical question is, whether a man not bringing himself, but being brought by "mental depression" or mind-disorder, to the state of feeling indicated by Lord Justice Brett, would be guilty even though he knew the deed contemplated to be illegal? The victim of St. Vitus's dance is perfectly conscious of the ridiculous antics he performs; he knows the movements are absurd, and *can* to some extent, at least, restrain them; but the will is not strong enough to control voluntary action. The assertion may seem paradoxical, but it expresses the fact. In the same way judgment sometimes fails to govern the sense of right and wrong. Is a man so circumstanced insane?

Psycho.—All information will be given cheerfully by Dr. Liveing, Cambridge.

SMALL-POX STATISTICS.

To the Editor of THE LANCET.

SIR,—The present outbreak of small-pox in the metropolis and other parts of the country having directed attention to the subject of vaccination and revaccination, the following statistics of cases received into the Monsall Fever Hospital, Manchester, in the past year may be of some interest.

During the past twelve months small-pox has been present in Manchester in a more or less epidemic form; and although the following cases are but a small part of the total number for the year 1876, other hospitals in the neighbourhood having taken their share, still, as they have been received from all parts of the city and outlying townships, they may fairly be taken as representing the mortality &c. in this district.

	Cases.	Deaths.	Rate per 100.
Cases vaccinated, with one or more distinct cicatrices	745	71	9·53
Said to be vaccinated, but no cicatrix visible	37	13	35·13
Unvaccinated	78	46	57·7
Not known whether vaccinated; no cicatrix	61	29	47·54
Total	921	158	16·07

From the above figures it would appear evident that if a cicatrix be visible, even if revaccination should not have been performed, the risk is considerably less than where all marks of vaccination have disappeared. In most of the cases classed as not known, the patients asserted they were ignorant as to vaccination having been performed or not; but it is probable that a considerable number of them were unvaccinated, it being often difficult to get patients to acknowledge non-vaccination, owing to an idea that they or their friends will be punished for its neglect. For the same reason some of those cases set down as "vaccinated, but no cicatrix," were probably unvaccinated. Assuming this to be the case, the mortality in unvaccinated cases would be somewhat lower than above estimated, but even then very high, higher indeed than it is stated to have been before the introduction of vaccination; and this gives rise to the question whether, as has been suggested, the small-pox of the present time is not of a more virulent type than formerly.

As a proof of the efficacy of vaccination in at least preventing mortality for a certain time, may be stated the fact that amongst children under eight years of age (of whom a considerable number have been admitted, suffering from more or less modified small-pox) not a single death occurred where there was a vaccination scar to be seen. Of the total number of cases received into the hospital during the whole year, not one had been successfully revaccinated within the previous four years; and amongst the nurses, servants, and other workpeople coming into the hospital for employment during the year, not one contracted the disease, all being previously revaccinated. Several deaths took place, however, in patients who had been revaccinated at some time since infancy, and one of the worst cases admitted was that of a man who died from variola hæmorrhagica, having been twice vaccinated, and twice before suffered from small-pox, and sufficiently so to have left some pitting. Many and varied remedies have been employed for the purpose of preventing pitting, none with complete success. The method pursued here has been to paint the eruption during the three or four first days with tincture of iodine, diluted with one-fourth its bulk of rectified spirits of wine. Very good results appear to have attended the use of this agent, only a small proportion of even bad cases being much pitted. It causes some smarting, but, if the eyes be kept closed, not in most cases such as to cause much inconvenience. It allays the irritation and itching of the eruption, so much so that patients not unfrequently ask to have their faces painted more than once during the day; it also acts to some extent as a disinfectant and deodoriser. It is right to add that the wards have also been kept shaded with green blinds.

I remain, Sir, yours &c.,

HENRY TOMKINS,
House-Physician to the Manchester Royal Infirmary; late
Feb. 1877. Resident Medical Officer, Monsall Fever Hospital.

THE CHAMPION RIFLE SHOT OF INDIA.

THE name of Dr. Hamilton, of the Army Medical Department, is known to every rifle shot of note in this country. In the Irish Team he was a tower of strength in their matches. His friends will be glad to know that the laurels he won at Wimbledon and other meetings have been eclipsed by his achievements with the rifle in India. At the last N.I. Rifle Association meetings, which took place during Christmas week, Surgeon-Major J. B. Hamilton won the Gold Medal and Championship, also the Lumsden Cup for Officers and Volunteers, the Viceroy's Cup, and several other prizes. This is the second occasion on which Dr. Hamilton has won the Championship badge of India, although the competitors on each occasion were numerous and efficient, among whom we observe the name of Mr. H. Ross. Rifle shots will appreciate the shooting capabilities of Dr. Hamilton when we say that for the Viceroy's Cup he made a score of 139 out of a possible 150. We much question whether a better performance has ever been recorded. An Indian paper "hopes that Mr. Hardy will be able to obtain some more army medical officers of the stamp of Surgeon-Major Hamilton."

Messrs. Millikin and Co.—We regret we could not give the necessary space.

CONCEALMENT OF BIRTH OR MURDER?—"THE PENRITH HORROR."

To the Editor of THE LANCET.

SIR,—By the newspapers sent, you may understand the importance of the case of Mrs. Kirkbride, tried for repeated concealments of birth; the expressed suspicions of Baron Huddleston and of Justice Manisty as to even murder; and the lack of proof that three infants out of the six, with clear and lasting marks of such injuries as could not fail to kill, had been born alive. The medical testimony failed to show that these infants had ever breathed. The lungs, of course, could not be looked to after the little bodies had for several years been shut up in boxes. The bodies were dried up, withered, and mummified, as I learn from the medical gentlemen of Penrith, who seem to have taken all usual pains with this remarkable case. Can we not in any future case, if ever such should occur, do more by devoting minutely careful attention to the organs of circulation, so taletelling, or to the distinctive signs of intra-uterine life, or separate or independent existence? The foramen ovale and its valve *versus* the fossa ovalis, the ductus arteriosus *versus* a ligament, the relative equality or otherwise of the walls of the ventricles of the heart, the umbilical vein *versus* the round ligament of the liver, the umbilical arteries *versus* the superior ligaments of the bladder, and the brief time required for such changes taking place as await the beginning of breathing. "Almost in a moment," says the *Dublin Dissector* (Prof. Harrison). "So soon as the child breathes," says KNOX, "this complex circulation ceases." And Prof. Carpenter says of these changes at birth that they take place immediately on the first inspiration. Can "mummification" be overcome, or does it present insuperable obstacles? Attention to these points by all of us is urgently required.

Yours obediently,
Feb. 21st, 1877. ROBT. ELLIOT, M.D., F.R.C.P.

*** Dr. Elliot's letter is so suggestive, and the case to which he alludes is so shocking and important, that we gladly publish his remarks. The Judges did not hesitate to express their belief that this wretched woman had not only concealed the birth of three, if not six children, but had used violence that could have no significance unless meant to destroy life. In two cases cords were tied round the neck deep enough and tight enough to cause death. In another case the head had been severed from the body, and the umbilical cord tied. With such facts, and so multiplied, it seems to us rather a refinement to demand the ordinary evidence of independent life in the children, which in the nature of things, as explained by Dr. Elliot, could not be forthcoming. Mr. Justice Manisty said indeed that he and Baron Huddleston had been hindered rather by technical than substantial difficulties in deciding that the prisoner should be tried for concealment of birth, and not for murder.—ED. L.

SALICYLIC ACID IN IRITIS.

DR. L. WHEELER extols the potency of salicylic acid in iritis in a paper published in the *Boston Medical and Surgical Journal* for Feb. 22nd. He had himself been a severe sufferer from the affection, having had in all twelve attacks of iritis. In his last attack he had recourse to salicylic acid, and soon obtained marked benefit from the drug. He now appears to be taking the acid regularly and freely, and suffers no unpleasant effects from its use except slight constipation.

PORTABLE URINE TESTS.

To the Editor of THE LANCET.

SIR,—I regret that I omitted to refer to Mr. Kesteven's original letter. I did not remember that he had recommended thin microscopic glass. I should have thought its great fragility on simple handling was rather against it. The slip which I use does *not* crack if care be taken to apply heat gradually.

Although there are no doubt sources of error in the copper tests for sugar, Fehling's solution gives satisfactory results in the great majority of cases. When the copper is reduced rapidly, and at a comparatively low temperature, we may safely conclude the reduction to be due to sugar; but we should, no doubt, be safer still if confirmatory tests were applied at home, as I intended should be done in all cases.

The turbidity caused by the precipitation of mucus by acetic acid would not, I think, cause any practical difficulty. The amount of mucus is very small in most urines; where there is an excess, its presence may be recognised without any test at all, and then filtration should be done; or it would be safer, and not difficult, to filter a drop of urine on to the slip in *all* cases before applying the acetic acid and ferrocyanide.

In conclusion, I by no means intend to claim perfection for my case. Mr. Kesteven's is very well adapted to its purpose; my own, I venture to think, possesses some advantages; and a third arrangement, superior to both, could no doubt be devised without much difficulty.

I am, Sir, your obedient servant,
Upper Berkeley-street, March 5th, 1877. JOHN CAVAFY.

QUALIFICATIONS.

A Constant Reader.—The questions put by our correspondent are practically settled, and discussion would not tend to throw light on them. First, a legally qualified medical practitioner is one holding a *medical* qualification from one of the Bodies mentioned in Schedule A of the Medical Act, and duly registered as such. If his qualification is surgical, or if, though medical, he is unregistered, he is practically unqualified for medical purposes, in the sense that he cannot recover a bill for medical attendance, or hold a public medical appointment. For appointments under the Local Government Board, a man must be qualified both medically and surgically, and his qualification must be registered. After the Act of 1858, removing territorial restrictions of qualification, the Board deemed it advisable to modify the provisions of the General Consolidated Order, so as to enable any person who can establish his qualification to practise *both medicine and surgery* by the production of proper testimonials, issued by competent legal authority in any part of the United Kingdom, to be a candidate for the office of medical officer in the unions to which the order is directed. In the circular intimating this modification is a list of the authorities granting qualifications, and the nature of the qualification granted by each Body. Where a fully qualified candidate *cannot* be obtained, the guardians have to act under certain provisions of a general order dated 25th May, 1857. The general draft of these provisions is that men not fully qualified, and not resident in their district, are only appointed for a certain time approved by the Local Government Board. Secondly, a registered M.R.C.S. cannot by law charge for attendance on medical cases. By attendance on such cases he may incur the risk of penalties under the Apothecaries' Act; but we have authority for assuring such persons that they will not be molested by the Society of Apothecaries, which is too liberal and enlightened to wage war against a practitioner holding such a diploma.

Fair Play's communication arrived too late for notice this week.

THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—The extracts which I enclose herewith are taken from a letter which I have just received from a friend in the Indian Medical Service. As they deliver a "round unvarnished tale" of the present condition of the service, they are, I think, of sufficient interest for a place in your columns.

I am, Sir, yours faithfully,

Seymour-street, Portman-square, Feb. 1877. EDMUND OWEN.

"I dare say that you are often asked by men if you would advise them to go into the Indian medical service, so I will just give you an outline of the facts of the case. In the first place, not one of those stories that one hears at home about making a fortune out here in a few years is true. From a pecuniary point of view, the Indian medical service cannot compare with a good average general practice in England. But for a man who has no prospects at home, who likes an easy life, and would be satisfied if he possessed a competence after twenty years' service, India answers very well. Of course there are a few men in the service who make fortunes, but they certainly do not exceed two per cent. of the whole number, so it is hardly worth while counting on that. In addition to the certainty of your pay, which relieves you of all anxiety, you have your position as a covenanted commissioned officer, which really (though it may appear a small matter to you) is of considerable importance out here, where, from having so little to do, people pay great attention to small details. This gives us an advantage over engineers, barristers, and servants of Government in many departments."

"We all out here should regret being divided into a civil and military department. Should this be done, we should barely be on a level with the Public Works department, a class of Government servants of no great social position. We should also lose our right of election to United Service Clubs, and each of us, instead of being a servant of the Crown, who alone can dismiss him (and that only for grave moral offences, such as a court-martial could take cognisance of), would be merely a servant of the local Government, under whom he is serving. Should he displease his lieutenant-governor, he would be liable to dismissal, or punishment by degradation, or by being sent to a penal station—as stations in India are called which are extremely unhealthy. Our social loss would be immense, and instead of our service being by far the most independent in India, it would be the most helpless of all. For being the youngest department in each local Government, any young secretary would consider that he had a perfect right to bully any member of it, as we should have no head to protect us; whereas now our Surgeon-General, in direct correspondence with the Governor-General and Secretary of State, can always shield any member of the department from persecution by a local Government. The only men who could gain anything from so disastrous a change would be two or three sanitary commissioners, who would be freed from the control of their legitimate chief, the surgeon-general. It is so difficult for people at home to realise matters as they exist out here that you will be doing us a good turn if you will represent how matters really stand."

Dr. Mason.—The University of Aberdeen takes precedence of Dublin. The following is the order, with dates of foundation:—Oxford, 886; Cambridge, 1110; St. Andrews, 1413; Glasgow, 1450; Aberdeen, 1494; Edinburgh, 1582; Dublin, 1593; London, 1836; Durham, 1837; and Queen's University in Ireland, 1850.

A. F. G.—We must decline. Consult a respectable practitioner.

CURE FOR SUPERFLUOUS HAIR.

To the Editor of THE LANCET.

SIR,—Will some of your numerous readers kindly suggest a permanent cure for the following case?

A lady patient of mine, aged about forty, married for many years, but childless, has a disfiguring quantity of hair on the chin and upper lip, which has been the source of great annoyance. Topical applications have, so far, had only a temporary effect.

Yours truly,

Bromley-common, Feb. 28th, 1877. F. C. GRESHAM, M.D.

THE QUESTION OF REVACCINATION.

To the Editor of THE LANCET.

SIR,—During the past few months, chiefly I think in consequence of the existence of a Small-pox Hospital in our midst, there has been almost a panic here on the question of revaccination; and wisely, and I may say fortunately for our neighbours, a very large number have submitted to the operation.

My experience in the matter of revaccination has been very large, not only during the present epidemic, but also during that which existed in 1871. The question which has been mooted in THE LANCET, as to the security of persons who have successfully passed through the ordeal, is one of very great and practical importance, and one also which we are almost daily called upon to decide. I venture, therefore, to offer you the results of my observations on the matter, with the hope that by doing so it may lead to a more general expression of opinion on the subject.

I may commence by stating the fact that, although my cases of revaccination number during the two epidemics many hundreds, some of whom have since been exposed to the infection of small-pox in their own homes, I have *never once* met with the case of a patient who had been successfully revaccinated who had taken small-pox. Hampstead has been singularly free from small-pox during the existence of both epidemics. During the present one I have only seen ten cases. In every case I have immediately insisted upon revaccinating every inmate of the house, and in no single case has the disease spread amongst them. All evidence very clearly points to the almost absolute protection afforded by successful revaccination. The great and important question to decide is as to how often revaccination should be recommended; and, if it be deemed necessary to perform the operation a *third* time, what are the circumstances that render it desirable?

I cannot agree with the suggestion of Dr. Pollock, that a person who did not "take" when revaccinated during the last epidemic should be deemed *safe*, and that the person who was successfully revaccinated on that occasion should be deemed *unsafe*. On the contrary, I should come to exactly the opposite conclusion, and for these reasons: 1st, because the experience of the medical officer of the Highgate Small-pox Hospital, as set forth in the circular issued by the Local Government Board, goes to prove that a person *once successfully* revaccinated is secured for life; and 2ndly, that in my own experience many who were unsuccessfully vaccinated in 1871 have been most successfully operated upon by me during the last few months. The important question then arises: Supposing persons have been once successfully revaccinated after the age of puberty, and who, on being operated upon for the third time, take well, does the fact of their doing so prove that they were not previously protected? or does it only show that some people are more susceptible than others to the virus when brought into *direct contact* with an absorbing surface, but who otherwise might be protected from the *infection* of small-pox?

I have had several patients whom I have vaccinated three or four times, and who invariably have taken well each time. I have also had several cases lately of persons badly marked with small-pox, and who have gone through the various stages of revaccination most perfectly. Would these people have been liable to take small-pox a second time if exposed to infection?

The conclusions to which I have come on the subject are: 1st. That *successful* revaccination is perfectly protective. 2ndly. That it is protective for life. 3rdly. That, nevertheless, I should deem it well in all cases of doubt or of special exposure to infection to revaccinate all those so exposed, regardless of the fact of their having been previously revaccinated, unless the operation had been of very recent date. The whole matter, however, hangs upon the word "*successful*." What evidence ought to be sufficient to prove to our minds that a patient has been *successfully* revaccinated? To my mind nothing short of decided and distinct local irritation, accompanied with an areola around the punctured points, associated with more or less of a feeling of *malaise* about the second or third day, is satisfactory. Until such a result has been arrived at, I should advise a patient to undergo the operation at intervals of a few years, and if possible to be done directly from the arm of an infant. I am certain that many people rest upon the false security of an unsuccessful attempt at revaccination, and come to the conclusion that because it is unsuccessful they are protected. I have a practical proof of this in a case now under treatment for small-pox; the patient had been revaccinated without any result not long since by another practitioner.

There are three important items tending to the production of successful revaccination:—1st. Good and reliable lymph. 2nd. Never to be satisfied with only one trial. 3rd. The *modus operandi*.

Concerning the first I need say nothing. The second I would urge as important. Several people who had been unsuccessfully revaccinated lately have come to me, and the result has been most successful. Again, several of my own cases have failed the first time, and have been successful on the second trial. There are several reasons why this might occur. 1st, the lymph might be at fault; 2ndly, it might fail to have been brought into contact with the absorbing surface; or 3rdly, having been thus deposited, it might have been washed away by the oozing of the blood from the punctures. These causes of failure naturally lead to the consideration of the third item—viz., the *modus operandi*. The objects sought to be obtained should be rapidity of operation, the minimum amount of pain, the limitation of the exposed absorbing surface, and absence of bleeding. Numberless instruments and methods have been devised to effect these objects; but in the year 1870 I was so disappointed at the results of many I tried, that I contrived an instrument which I described in THE LANCET of 1871, which I had made at Coxeter's, in Grafton-street East, with the result of which I have every reason to be most satisfied. Its compactness, portability, simplicity, and cheapness, combined with the impossibility of its getting out of order—all point to its ultimate universal adoption. The success attending its use in the hands of myself and of my brother practitioners is remarkable. During the present epidemic I have scarcely ever failed to produce satisfactory results, and I should think the proportion of failures in cases of revaccination has been scarcely five per cent. It has appeared to me that during an epidemic of small-pox, people are more susceptible to the influence of vaccine virus.

I am, Sir, yours &c.,

Hampstead, March, 1877. H. COOPER ROSE, M.D.

MEDICAL POLEMICS IN JAMAICA.

THE last file of Jamaica papers contains a good deal of correspondence between Drs. Scott, Stevenson, Anderson, and Saunders, of Kingston, on the one hand, and Dr. Croskery, of the same town, on the other. The latter gentleman made an astounding statement, to the effect that he had discovered the existence of a new type of fever in Kingston; but when challenged to a very temperate letter by the four gentlemen named above to produce any proof of the same he was unable to substantiate his assertion; but, instead, launched out into a long disquisition on yellow fever, which was utterly beside the question. We have carefully perused the whole correspondence, and can come to no other conclusion than that Dr. Croskery's conduct throughout was unwise and not strictly professional.

Inquest.—A direction to bring in a verdict "Found drowned" should not be given by a coroner in any case until after final failure to discover how the deceased came by his or her death. Obviously no such verdict would be justified in a case in which it had not been ascertained by examination that the "cause of death" was drowning.

Chirurgeon.—We think he is not justified in giving a certificate.

THE GRAVE OF SIR CHARLES BELL.

To the Editor of THE LANCET.

SIR,—Being an admirer of the character and works of the late Sir Charles Bell, I availed myself to-day of a few hours' leisure, during a professional visit to Worcester, to walk with a friend to Hallow churchyard, about two miles distant, to visit the grave of that distinguished man. I found that the old church of Hallow had been pulled down, and a new one built at some little distance, and that the old churchyard in which Sir Charles was buried is in a very neglected condition. With some difficulty I found the tomb, and was grieved to see that it is in a sad state of dilapidation. It is apparently a brick grave with the bricks rising about a foot from the ground, covered by a stone slab, and surrounded, or rather it had been surrounded, by an iron railing, but the railing has been broken down, and parts of it are lying about the churchyard, and the brickwork of the grave is also broken. In short, the grave is in a state of desecration. Now, a subscription of sixpence or a shilling a head from comparatively few of the members of the profession he adorned would suffice to put it to rights; and, if permitted to do so, I, though not a member of his profession, should be only too happy to contribute towards doing it. I presume that the slab of marble, with an inscription in commemoration of Sir C. Bell by (I think) Southey, which was placed in the old church, has been removed to the new one; but as on trying to get admission to the latter I found it as closely locked up from visitors, whether worshippers or others, as our Protestant churches usually are, I can give you no information on that subject.

I am, Sir, yours obediently,

Worcester, March 1st, 1877. Q.C.

Paterfamilias.—The prefix "Doctor" can only be conferred by a Senatus Academicus empowered by law to give a degree carrying a title. The College of Physicians of London errs by addressing its licentiates by letter with the name, and L.R.C.P. only, as a suffix. The impression conveyed is that the L.R.C.P. confers a title, though the College does not actually give it. For example, the other day licentiates of the London College were favoured with a shabby circular, externally resembling a tallow chandler's advertisement, directed upside down, to "Timothy Titus, L.R.C.P.," which must either be an insulting description or an implied concession of some title. Whereupon Timothy calls himself "Dr."

WE are requested to state that the recent meeting at the Central Home of the Metropolitan and National Nursing Association was the half-yearly Council meeting, and the number of cases mentioned applied only to the past half-year.

H. R. H.—The recommendation does not seem in good taste, and would require justification.

A HINT WANTED.

To the Editor of THE LANCET.

SIR,—Can any of your professional readers give me a hint in the treatment of exophthalmic bronchocele? I have a young lady under my care at present suffering from this disease, and I have been unable to afford her much benefit by the ordinary course of treatment. My patient is twenty-six years of age, unmarried, fairly developed, of a sanguine temperament, and until a year ago enjoying uninterrupted good health. Her present illness commenced about this time last year, with sudden loss of strength, anorexia, emaciation, severe palpitation of the heart, and throbbing of the carotids; swelling of the thyroid on both sides, especially the right, and great protuberance of the eyeballs. The catamenia, pale, scanty, and uncertain, ceased altogether after a time, and there was slight œdema of the ankles. About eight months since she had an attack of scarlatina gravior, but made a good recovery. Since then the treatment pursued has been that laid down by Dr. Hammond in his work on Nervous Diseases—viz., ergot, pyrophosphate of iron, bromide of zinc, and digitalis, with galvanisation of the cervical sympathetic and pneumogastric, and occasional injections of the tumour with ergotine (one grain). At first this treatment had a marked effect, beneficially, on every symptom, but latterly it has exercised no influence over them. All the symptoms have returned with increased severity, and the bronchocele on both sides and in front presses upon the larynx and great vessels to a very serious degree. Yours truly,

London, March 1st, 1877. M.D.

THE annual election of Fellows into the Council of the College of Surgeons will take place the first Thursday in July, when three vacancies will be declared, caused by the death of Sir William Fergusson and the retirement of Messrs. Gay and Erichsen. These two gentlemen will offer themselves for re-election.

Inquirens.—The question is a very important one; but it should be raised in the local papers.

"SMALL-POX IN THE LAUNDRY."

Dr. Sutton, of Nottingham, whose letter on this subject appeared in THE LANCET of the 3rd inst., requests us to publish the circular issued by him as medical officer of health. The subject of infection by the laundry agency is so important that we fulfil his wish. Meanwhile it should be remembered that something more than mere recommendation is necessary to ensure the observance of sanitary precautions.

Instructions to Householders as to the Disposal of Infected Linen &c. during the Progress of an Infectious Disease.—Act 38, 9 Vict., c. 56, provides that any person who gives, lends, sells, transmits, or exposes without previous disinfection, any bedding, clothing, rags, or other things which have been exposed to infection is liable to a penalty of £5. This penalty may be incurred therefore by any person who, without previous disinfection, sends infected clothes to the wash, infected bedding to the bedmakers, infected carpets, curtains, &c., to the dyer, infected rags to the rag merchant, &c. &c. The linen &c. which during the progress of an infectious disease has to be sent to the wash must be first disinfected on the premises. This may be done either by boiling the goods, or by soaking them in solution A. Linen and cotton goods which can be boiled without serious injury may be so disinfected if conveniences for so doing are at hand. Blankets, flannel vests, and such things as are injured by boiling, may be disinfected by soaking them well in solution A. Solution A consists of a mixture of one part carbolic acid (Calvert's No. 4 or 5), diluted, and thoroughly mixed with fifty parts of water. This will be in the proportion of—carbolic acid, two ounces (one wine-glassful); water, five pints. After such disinfection, goods may be sent to the laundry to be finished.

General Information with respect to Disinfection.—The above instructions relate to such linen and cotton goods as are usually sent to the wash every week, and which during the progress of an infectious case must not be sent to a laundry without previous disinfection. There are many other things which become infected during the progress of an infectious illness, such as bedding, carpets, dresses, &c., which are not amenable to either of the above mentioned processes, and the disinfection of which will be most conveniently deferred till the termination of the illness. When an infectious illness has terminated, and the patient has ceased to become a source of infection, then is the time for the disinfection of the sick chamber, and the removal of all infected articles of the above mentioned description to the public disinfecting station.

Solus.—It is a delicate matter to seek an appointment that has been long held by another man. But clearly a resident has the first claim; and if he cannot get the guardians to think so, he might not be to blame in trying to induce the Local Government Board to agree with him.

Mr. Callender's paper shall appear next week.

TREATMENT OF GOUT BY PRESSURE.

To the Editor of THE LANCET.

SIR,—Several letters relative to the pressure treatment of gout have recently appeared in your journal, in no one of which is there any reference to a paper by Dr. Garrett, of Hastings, who in THE LANCET of April 20th, 1861, p. 393, was the first to explain the *rationale* of action and mode of applying an elastic bandage in acute gout, illustrating his suggestion by a case where this treatment was immediately followed by refreshing sleep after four days and nights of agony.

Should the work which the New Sydenham Society have in the press, wherein I have endeavoured to make a Digest of all the more important contents of the medical journals during the last thirty years, have no other value, it will save much of your useful space, for a glance at its pages will show what is really novel. Yours &c.,

RICHARD NEALE, M.D. Lond.

Boundary road, St. John's-wood, March 3rd, 1877.

Mr. Porter.—It is impossible to print the remarks on "a new ether inhaler." They are too personal. The subject is not, moreover, of sufficient interest to justify the occupancy of more space.

Inquirer.—If a reader of THE LANCET, our correspondent must know we neither prescribe nor recommend practitioners.

ERGOTIN IN INSANITY.

To the Editor of THE LANCET.

SIR,—Will you kindly permit me to ask any of your readers who may be acquainted with the action of ergotin in brain disease, What are the symptoms which would manifest themselves if its use were too long continued? And how long two-grain doses daily might be given, as a general rule, with advantage? I am strongly of opinion that this medicine is not sufficiently appreciated in cephalic diseases, but I should be glad to have the assistance of others' experience in dealing with a case of insanity of long standing, the patient (aged fifty-three) not giving any aid whatever in determining its effects upon her. Your obedient servant,

March, 1877. ADDEN.

Associate King's College.—Our correspondent will find the portrait and a short memoir of Sir William Fergusson in the *Illustrated London News* of Feb. 24th, 1877.

Mr. J. H. Stedman is thanked.

Anxious.—Any respectable practitioner could treat such a case.

"A CARD."

To the Editor of THE LANCET.

SIR,—The following card was this day left at my door without being enclosed in an envelope. The dirty boy who delivered it had a packet of others, evidently intended for distribution in the neighbourhood (Russell-square). Comment would be useless. Yours obediently,

JNO. JAR. HUSKISSEN.

St. Bartholomew's Hospital, March 1st, 1877.

"Dr. Clement Pollard, Surgeon and Accoucheur, 11, Lamb's Conduit-street, W.C. At home for consultation until half-past eleven in the morning, and [illegible] in the evening."

POCKET CLINICAL URINE CASE.

Dr. Alexander (Bradford) has forwarded to us a compact case of urine tests, made for him by Mr. Hawksley according to his instructions. The case, which is of morocco, is 6 in. long, 2½ wide, and 1½ thick. It carries a jar for enclosing a urinometer, which requires 3½ drachms of fluid to float it, and is thus useful when but a small quantity of urine can be obtained; a bottle of liq. potassæ or Fehlin's test solution; two test tubes, which enclose capillary tubes filled with nitric acid, in a leather case; a movable stand for holding phial and test tubes when in use; a spirit lamp ingeniously constructed, and obviating leakage; two boxes made of ebonite, containing matches and test papers. Dr. Alexander's urine case will be found useful and handy.

GALVANOMETERS.

To the Editor of THE LANCET.

SIR,—In reply to "M.B.," galvanometers for estimating the amount of current are sold by dealers in philosophical apparatus. The instruments are delicate and costly, being designed for physical investigations requiring great accuracy. I am at present experimenting in the construction of a simple and inexpensive galvanometer, which will give indications sufficiently accurate for the requirements of medical men. The instrument will shortly be supplied by Messrs. Mottershead and Co., Manchester.

Yours truly,

Manchester, March 3rd, 1877. J. DIXON MANN.

Quærens.—The first meeting of the Special Committee appointed to inquire into the Operation of the Lunacy Laws took place on the 1st inst. The inquiry is expected to extend over several weeks.

Mr. Campbell.—Sir James Fergusson, the successor to the title of the late Sir William, is by profession a barrister.

THE VACCINATION ACT.

To the Editor of THE LANCET.

SIR,—In reference to my question in THE LANCET regarding the Vaccination Act, I have to acknowledge the receipt of several letters containing the required information. For these replies and for your insertion of my letter I beg to tender my thanks, and am, Sir,—Yours obediently,

Staunton, near Gloucester, March 2nd, 1877. ROBT. W. CHELY.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. T. Bryant, London; Dr. Brown-Séquard; Dr. Donkin, London; Mr. Callender, London; Dr. Leslie, Hampstead; Mr. Sutton, Sittingbourne; Mr. North, York; Mr. Jebb, London; Dr. Sandberg, North Repps; Mr. Allman, London; Dr. Speer, Boston, U.S.A.; Dr. R. Neale, London; Dr. Keith, Edinburgh; Mr. Brown, Wansford; Dr. L. Marsh, London; Mr. Cavafy, London; Dr. Warren Bey, London; Dr. Wharry, London; Mr. Blaker, Lewes; Mr. Sheard, Putney; Mr. Daft, London; Mr. J. H. Johnson, London; Mr. Mickling, London; Mr. Derenth, London; Dr. Macdonald, Cupar; Mr. Higgins, London; Mr. Ceely, Staunton; Mr. Squire, Bath; Messrs. Salmon Brothers, London; Mr. Mann, Manchester; Dr. Ellis, Auckland, New Zealand; Mr. Stedman, Highbury; Dr. R. Williams, London; Countess of Ebersberg; Dr. Rose, Hampstead; Dr. Scatliffe, Brighton; Dr. Heath, Newcastle-on-Tyne; Mr. Ralston; Mr. Anderton, Manchester; Dr. Innes, Vittoria; Mr. Mason; Messrs. Millikin and Co.; Dr. Heginbothom, Burton; Mr. Carter, Liverpool; Dr. Smith, Kilburn; Mr. Selfe; Mr. J. W. Barnes; Mr. Groves; Mr. Garner; Mr. Fox, Manchester; Dr. Simpson; Mr. Jackson; Dr. Lister, Ashton; Dr. Maclean; Captain Fortescue; Dr. Seaton, Nottingham; Mr. Meadows, Hastings; Dr. Craddock; Mr. Stevenson; Mr. Cox; Dr. Bristow; Dr. Caulfield, Cork; Dr. Knott; Dr. Eberle, Essingwold; Mr. Leigh, Liverpool; Dr. Denne, Bristol; Dr. Porter, Dublin; Dr. Monckton, Rugeley; Dr. Ellis, Bristol; A Retired Surgeon; O. P. Q.; A Constant Reader; M.D.; An Old Visitor and Owner of Property in Ventnor; Fair Play; Q. C.; D. V. M.; Anxious; M.D., Junior; A. S.; Hyde Park; Medicus, Camberwell; Cynic; M.R.C.P.; Inquirer; Inquest; Chirurgeon; A. B., Chirurgeon; A Constant Subscriber; A. F. G.; Psycho; Chirurgicus; Leicester; Aporon; Paterfamilias; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Davidson, Carlisle; Mr. Mason, Gosport; Dr. Jamieson, St. Helens; Dr. Arnison, Newcastle; Mr. Gutteridge, Maldon; Dr. Pearson; Dr. Brett, Watford; Dr. Thomas; Mr. Roberts, Southgate; Dr. Robertson; Mr. Natalie; Dr. Medlicott, Wells; Dr. Hall, Lancaster; Mr. Arundell, Crediton; Mr. Emmerson; Dr. Lewis, Houston; Mr. Greenwood; Dr. Foote, Rotherham; Yorkshire; L.K.Q.C.P.I., Clontarf; M.D., Bath; J. G. C.; Medicus, Callington; A. Z., Kingston-on-Thames; M.D., Strand; B. A., Ramsay; M.D., Stamford-street; Medicus, Derby; W. C., Manchester; Surgeon, Canning-town; Medicus, Kilburn; Delta, Stratford; G. F. P., Burnley; R. P. S., Denmark-hill; A. B. C., Hadleigh; M. B., Salford; A. B. C., Leeds; L. W. J., Leicester; B. T. C.; J. C., Glasgow; Studens, Brighton; T. T., Margate; Alpha, St. Helens; Luke.

Western Morning News, Newcastle Daily Chronicle, Financial Opinion, Willesden and Kilburn Chronicle, Boston Medical and Surgical Journal, Medical Record, Western Lancet, Hall's (Jamaica) *News-Letter, Academy, Daily Post, Solicitors' Journal, Examiner, Pharmaceutical Journal, Shield, Daily Chronicle, Sunday Times, Welshman, Spectator, Garden, Animal World, Land and Water, Graphic, United Service Gazette, Metropolitan, Home Chronicler, Supplement to the Worcester Herald, Yorkshire Post, West Middlesex Advertiser, Gazette Médicale de Strasbourg, Leeds Mercury, Harrogate Advertiser, Shrewsbury Chronicle, Rochester and Chatham Journal, Gazette Médicale de Paris, Western Morning Post, Indian Medical Gazette, Practitioner, Woolwich Journal, Record,* and *Newcastle Daily Journal* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, MARCH 9TH, 1877.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall	Remarks at 8 A.M.
Mar. 2	30·25	S.W.	43	43	...	55	27	0·18	Raining
„ 3	30·15	W.	47	48	...	53	43	...	Raining
„ 4	29·92	N.W.	46	47	...	48	43	0·13	Raining
„ 5	29·93	N.	37	40	...	47	36	0·24	Bright
„ 6	29·92	N.E.	36	38	...	40	34	0·01	Overcast
„ 7	29·94	N.W.	35	37	...	44	34	0·07	Cloudy
„ 8	29·93	N.	33	35	...	43	33	0·04	Cloudy

Medical Diary for the ensuing Week.

Monday, March 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. H. Flower, "On the Comparative Anatomy of Man."
MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Buchanan (the President) will address the Society on taking the Chair.—The adjourned Discussion on Dr. Edmunds' paper on "Vegetarianism" will be opened by Dr. Lawson.

Tuesday, March 13.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Gowers, "On the Pathological Anatomy of 'Canine Chorea.'" (The Microscopical Specimens will be arranged for inspection at 8 o'clock.)—Mr. Barwell, "On Congenital Dislocation of the Knees (Tibia forward)."—Mr. W. D. Wilkes, "On Vesical Calculus, the Nucleus of which was a piece of Necrosed Bone, removed by Lithotomy."

Wednesday, March 14.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. H. Flower, "On the Comparative Anatomy of Man."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Croonian Lectures: Dr. J. Braxton Hicks, "On the Difference between the Sexes in relation to the Aspect and Treatment of Diseases."
HUNTERIAN SOCIETY.—7½ P.M. Council.—8 P.M. Mr. C. H. Golding Bird: "Cases of Subcutaneous Osteotomy of Femur"; "The Treatment of Strumous Glands by Electrolytic Cautery."
EPIDEMIOLOGICAL SOCIETY.—8½ P.M. Surgeon-Major Colville, "On the recent History of the Plague in the Province of Baghdad."

Thursday, March 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HARVEIAN SOCIETY.—8 P.M. Dr. Hughlings Jackson, "On Affections of the Ear, with Nervous Symptoms."

Friday, March 16.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. H. Flower, "On the Comparative Anatomy of Man."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Lumleian Lectures: Dr. George Johnson, "On the Muscular Arterioles, their Structure and Function in Health and in certain Morbid States."
MEDICAL MICROSCOPICAL SOCIETY.—8 P.M. Meeting at the Century Club, 6, Pall Mall-place.

Saturday, March 17.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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